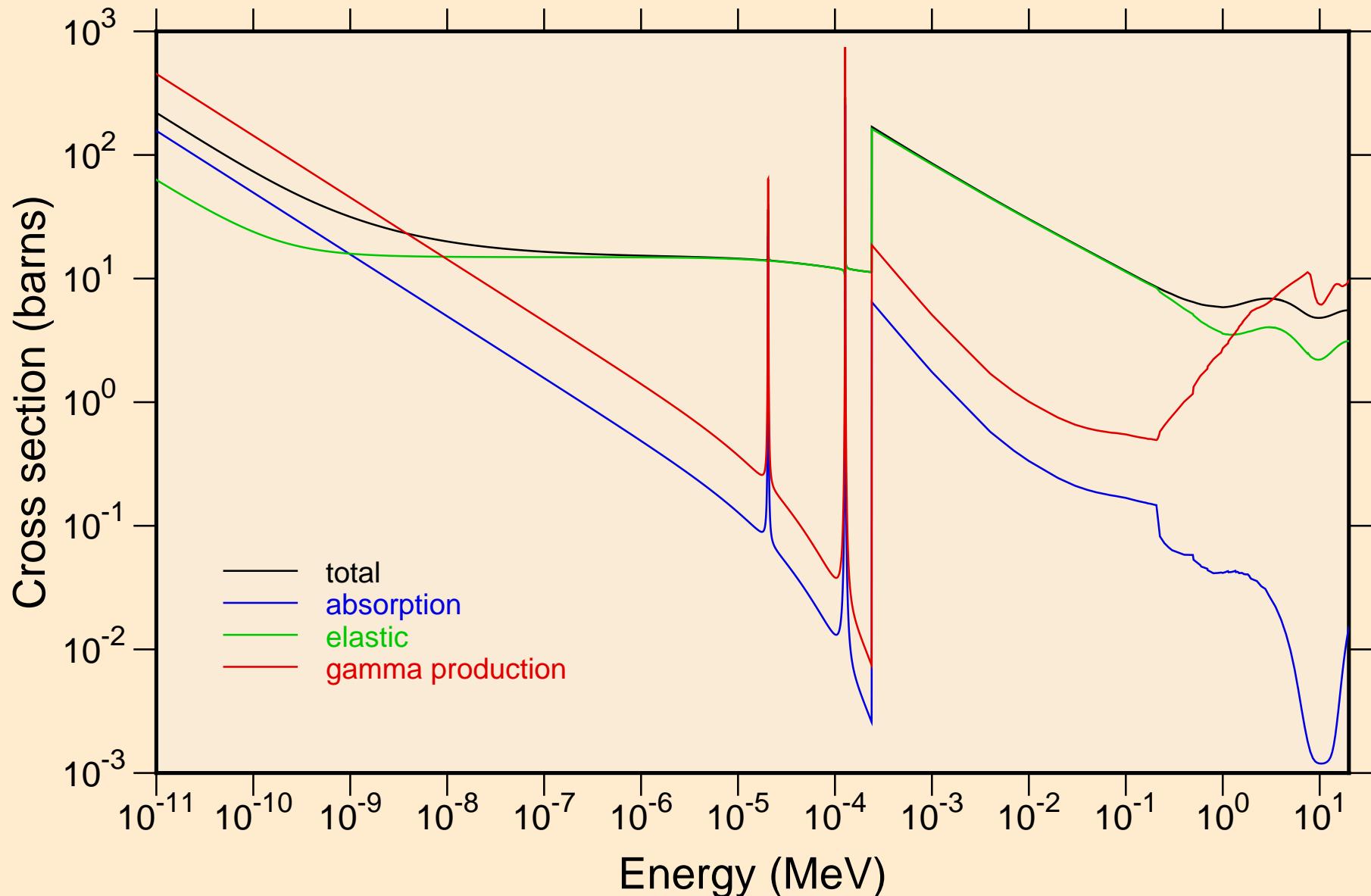


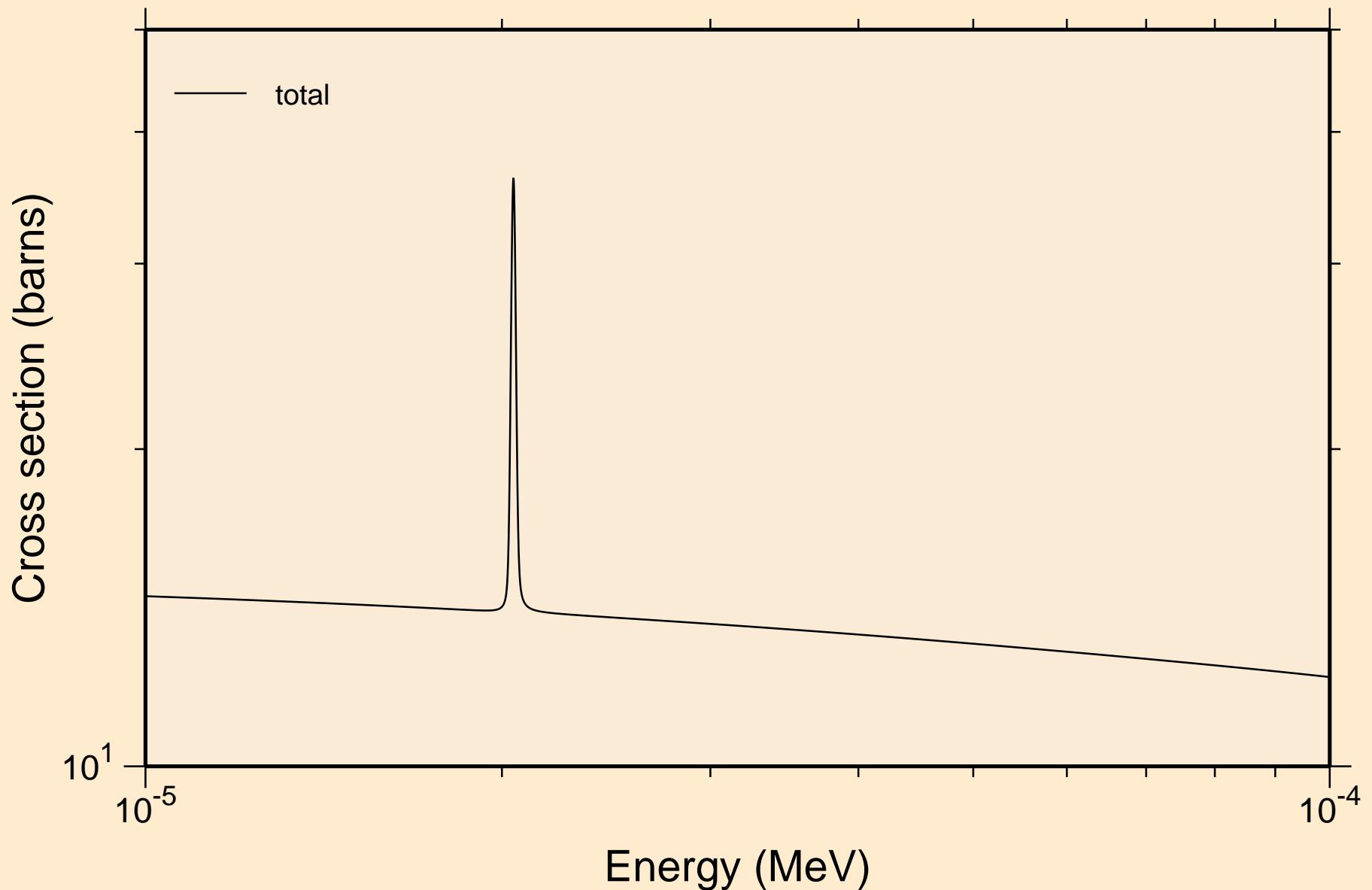
# ADVANCE CALCULATIONS

## Principal cross sections



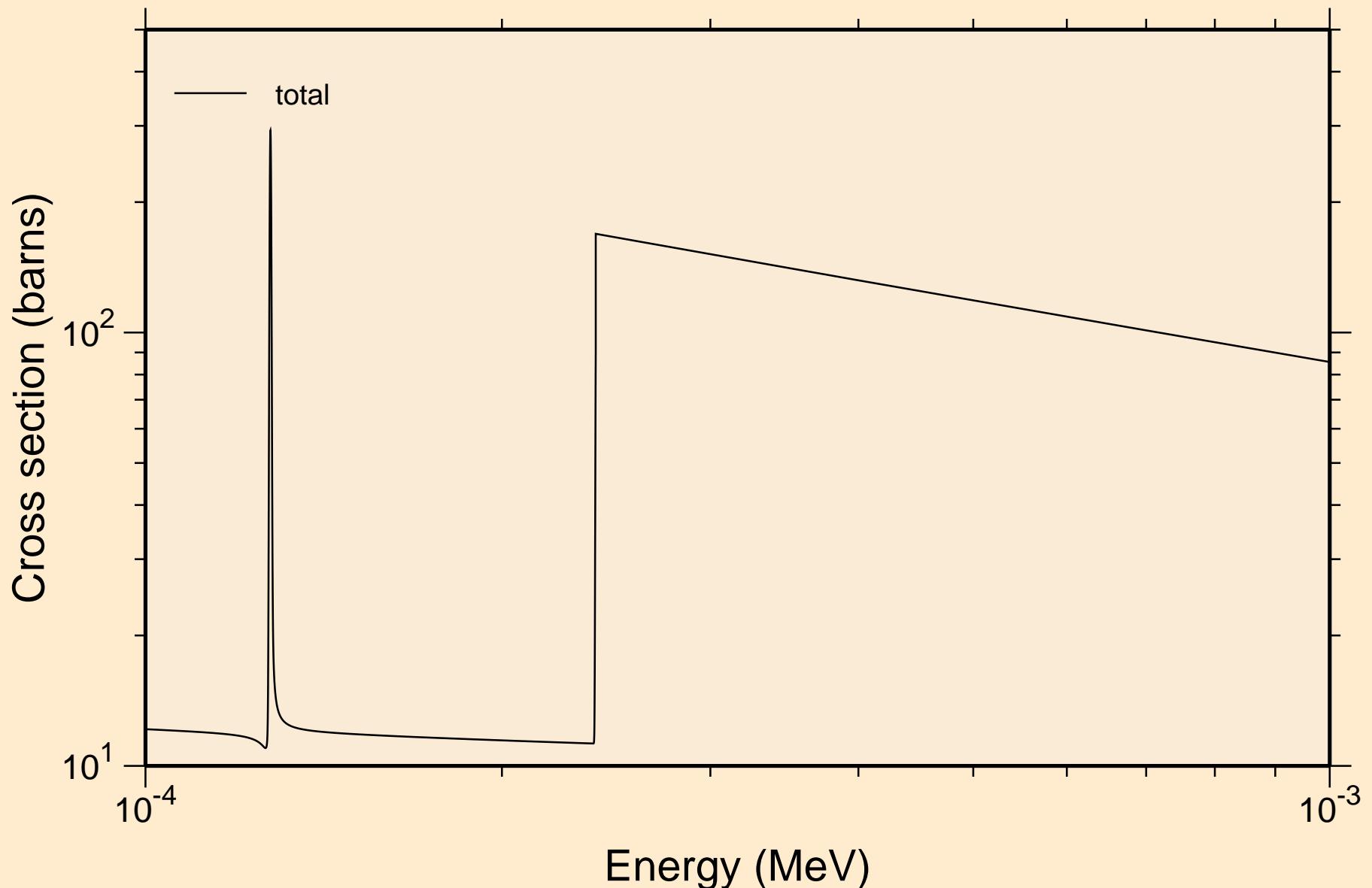
# ADVANCE CALCULATIONS

## resonance total cross section



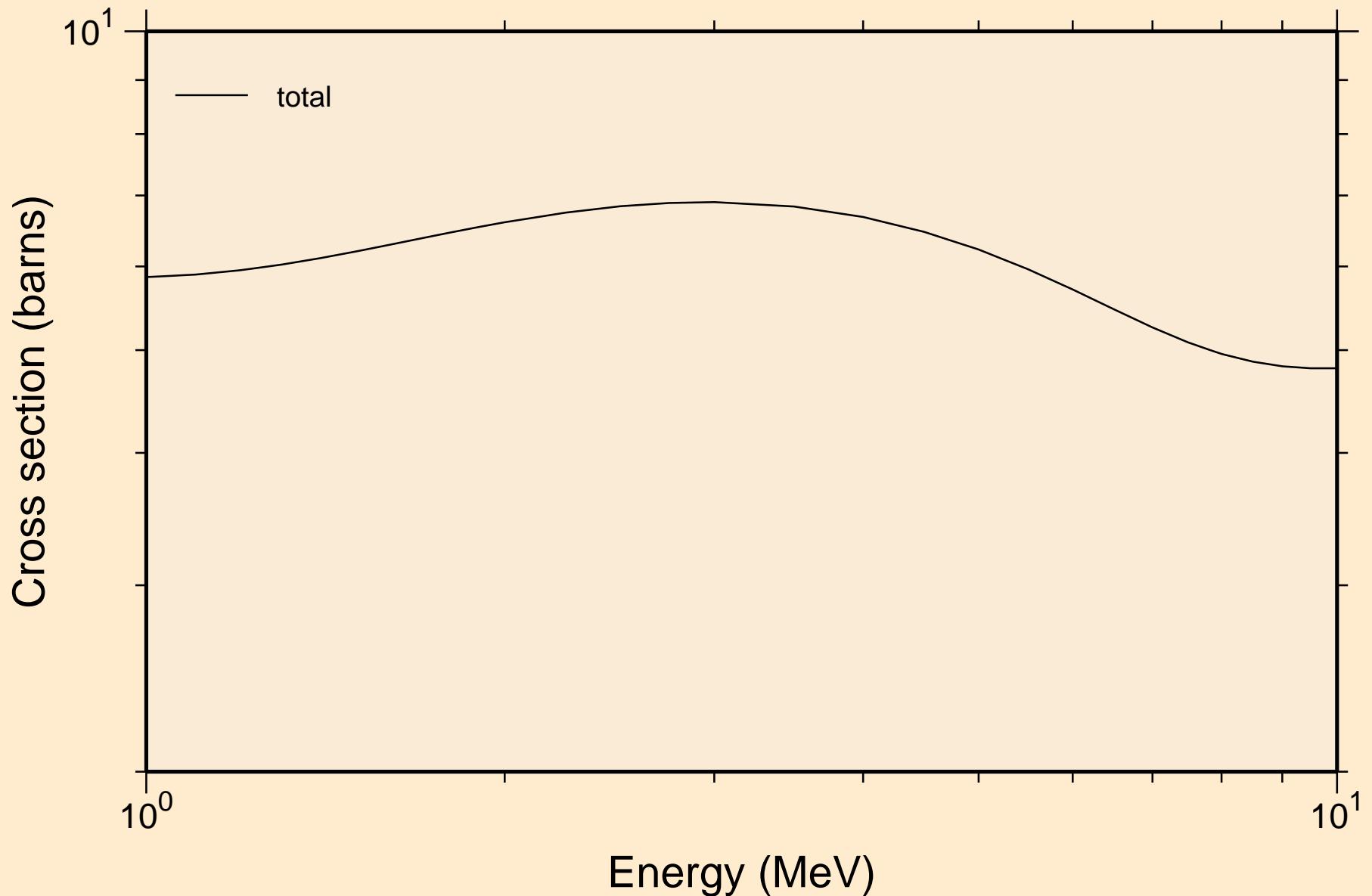
# ADVANCE CALCULATIONS

## resonance total cross section



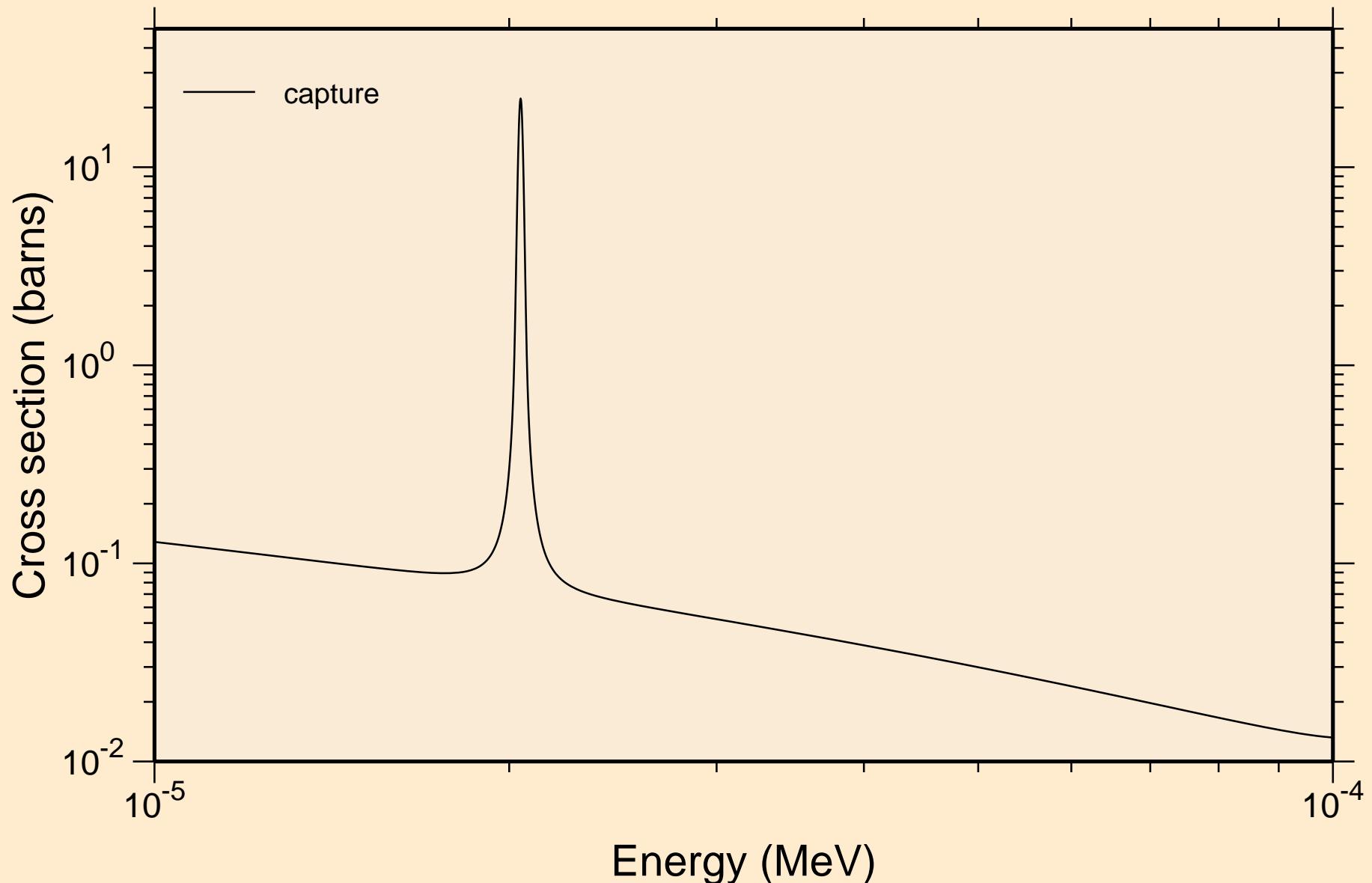
# ADVANCE CALCULATIONS

## resonance total cross section



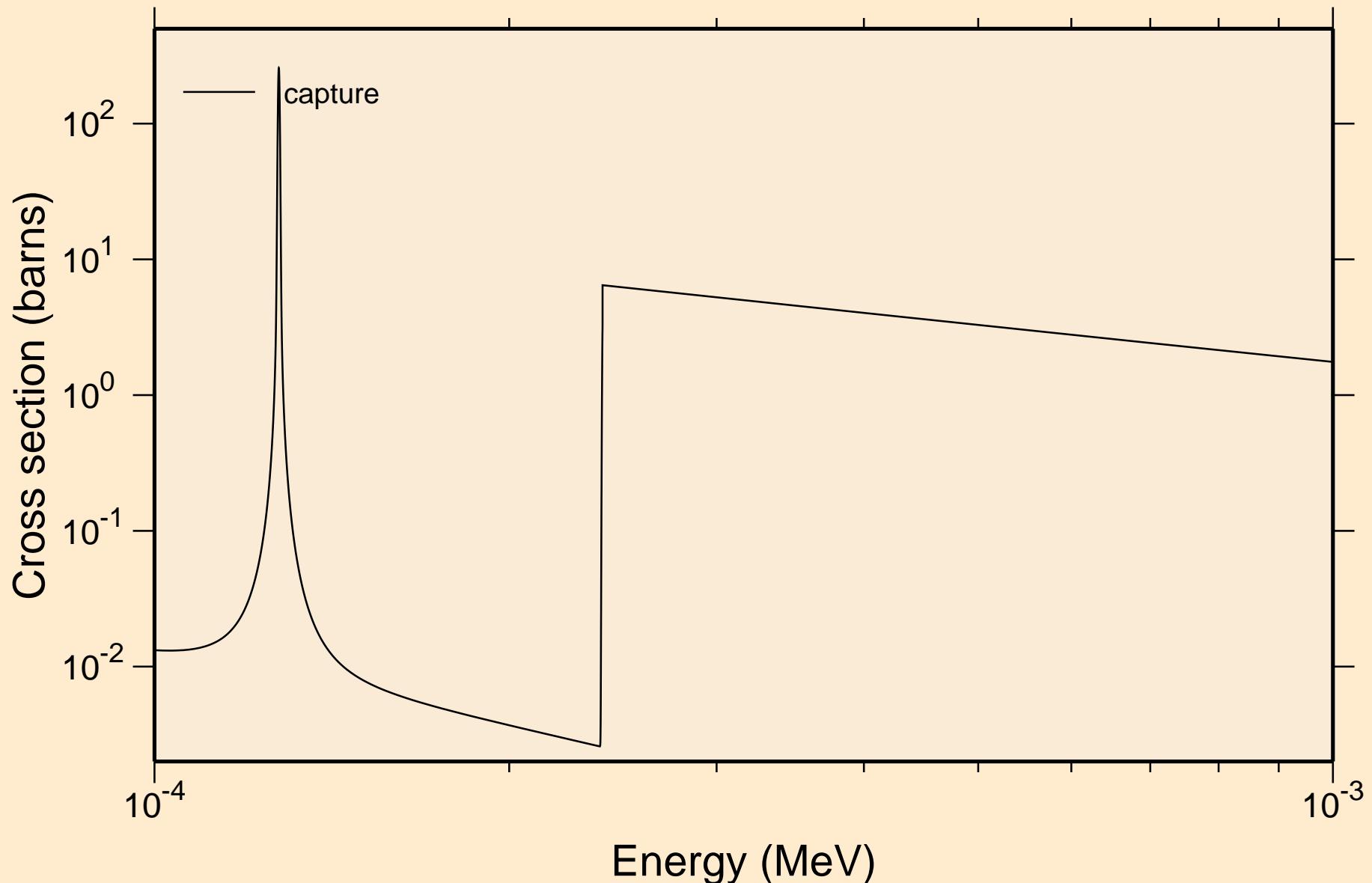
# ADVANCE CALCULATIONS

## resonance absorption cross sections



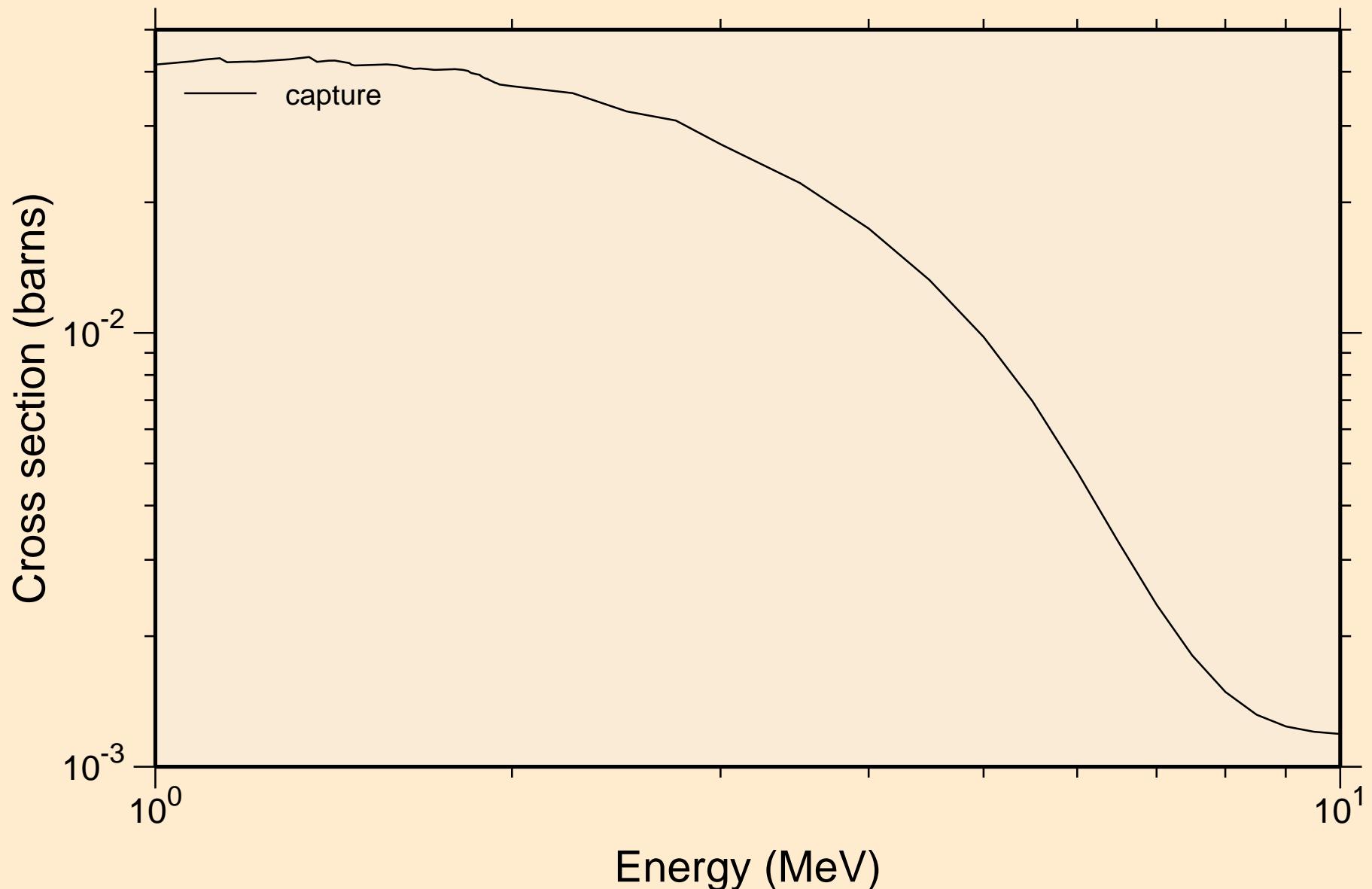
# ADVANCE CALCULATIONS

## resonance absorption cross sections



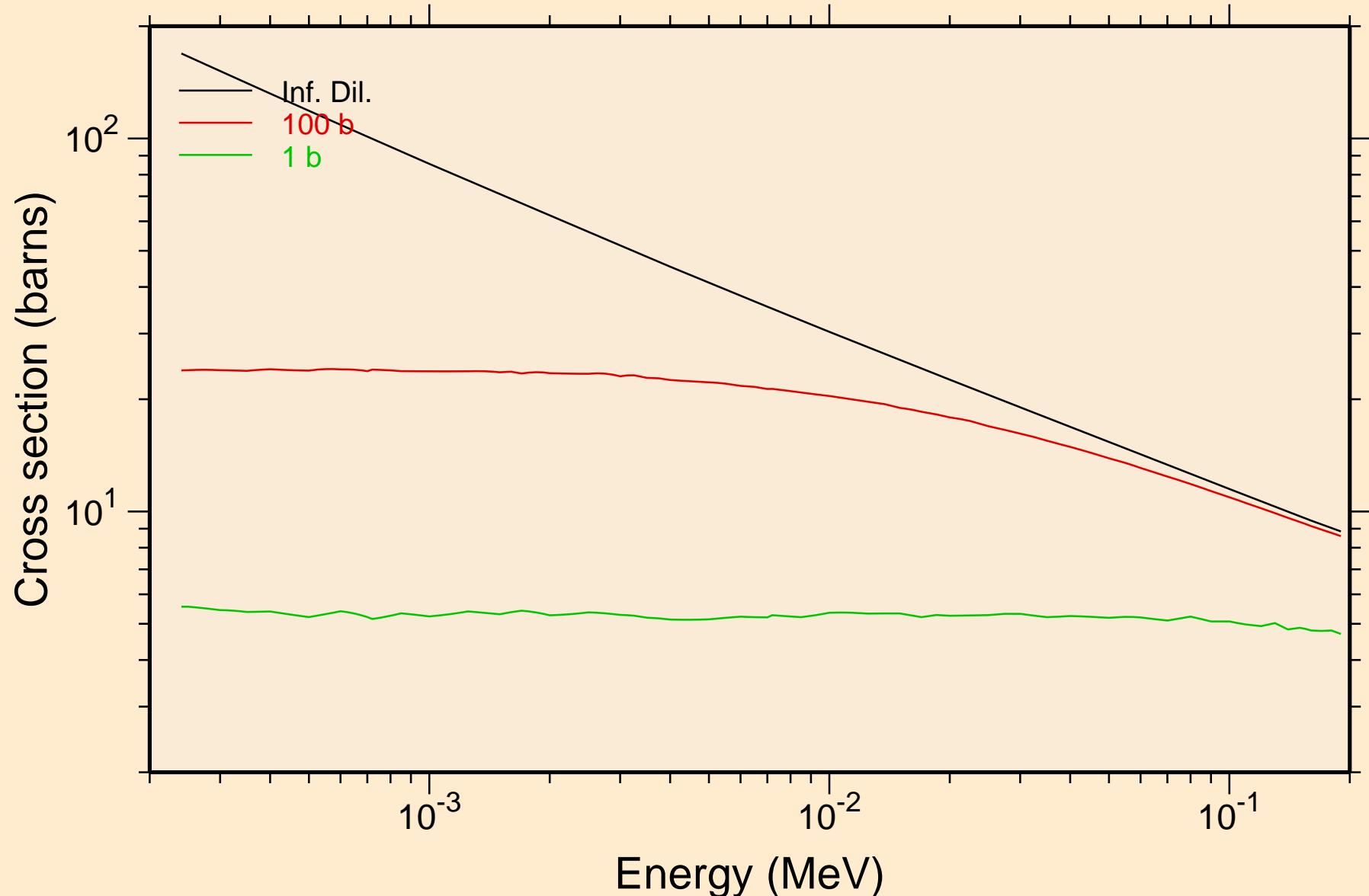
# ADVANCE CALCULATIONS

## resonance absorption cross sections



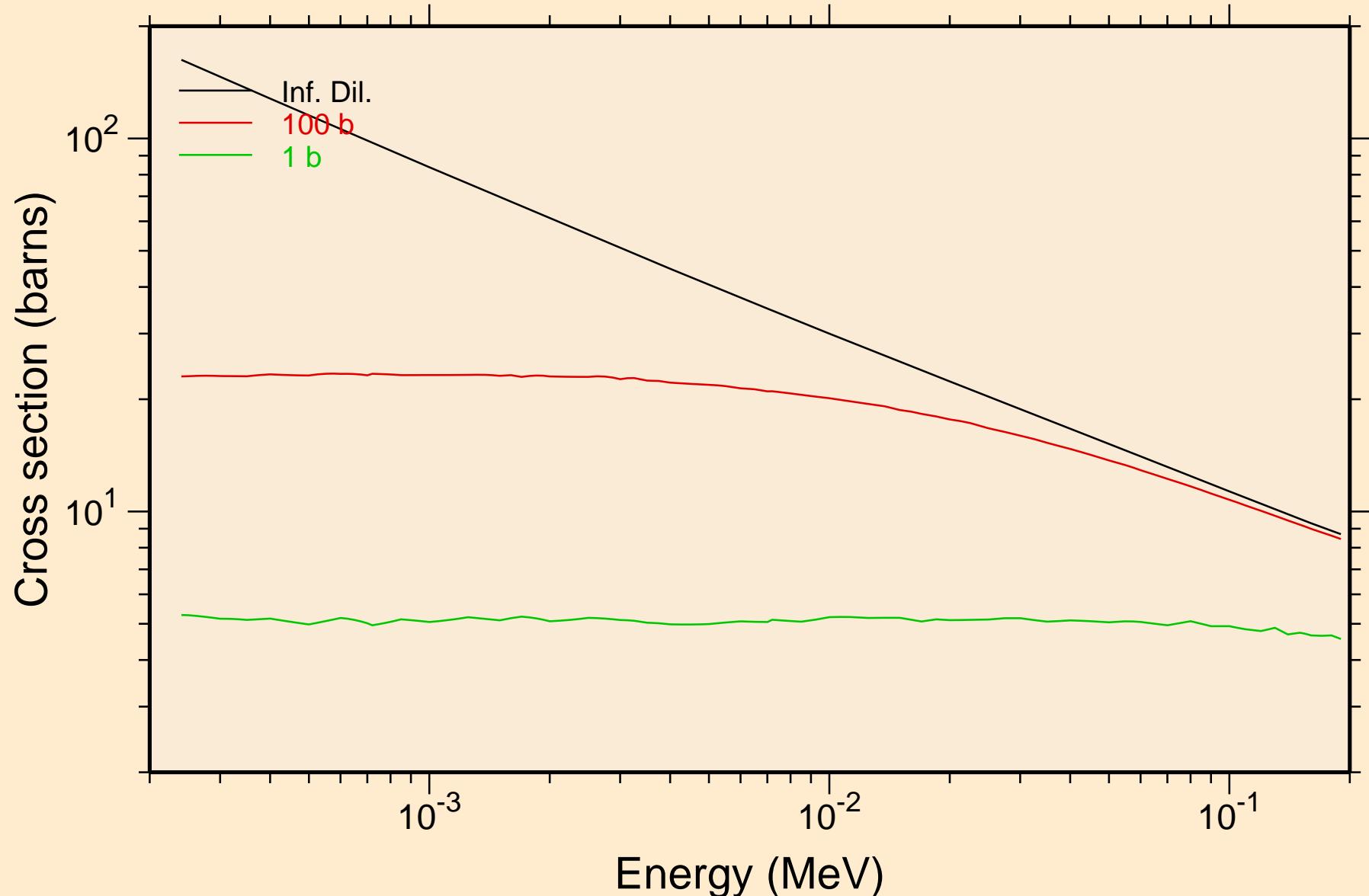
# ADVANCE CALCULATIONS

## UR total cross section



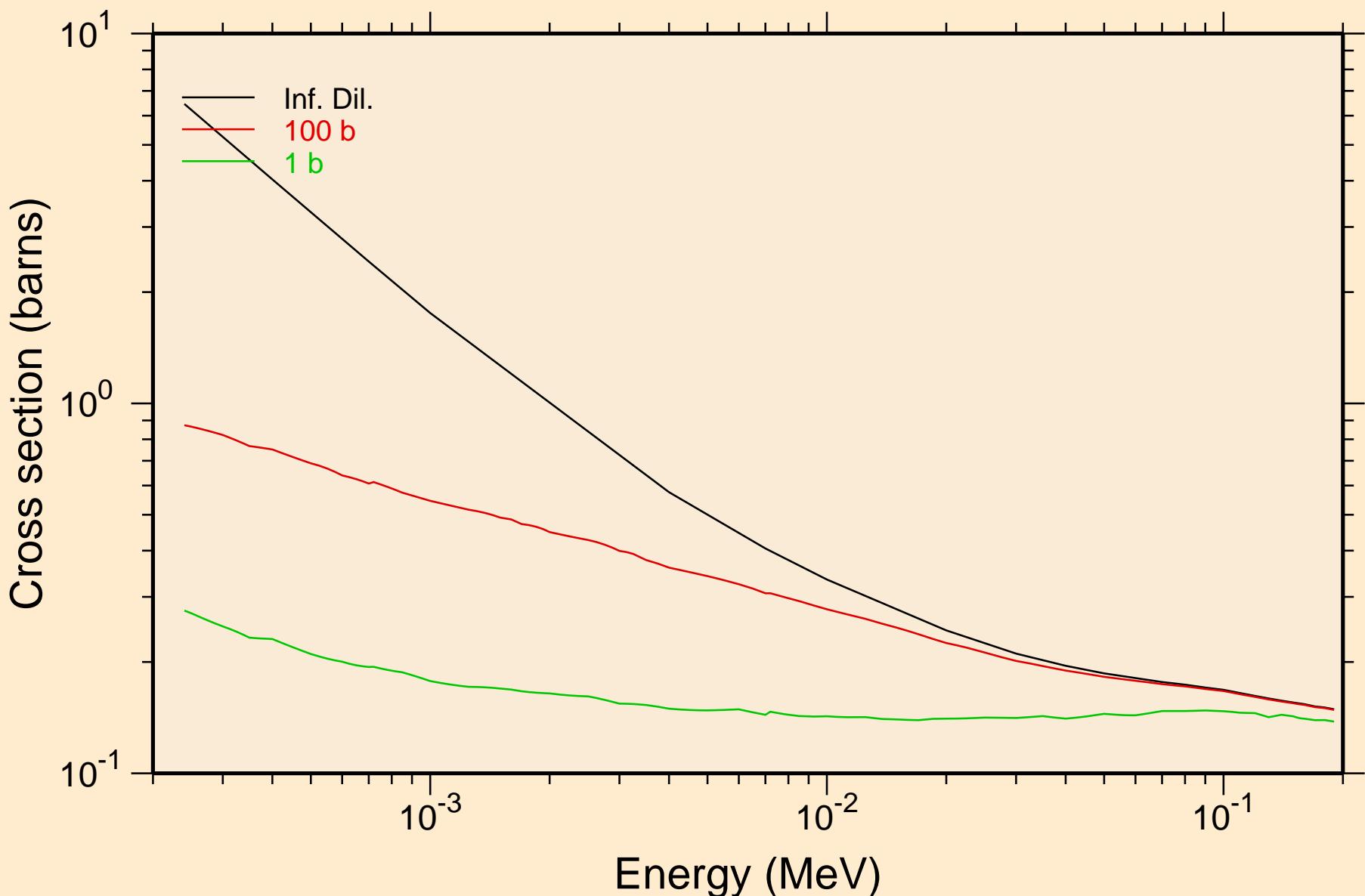
# ADVANCE CALCULATIONS

## UR elastic cross section



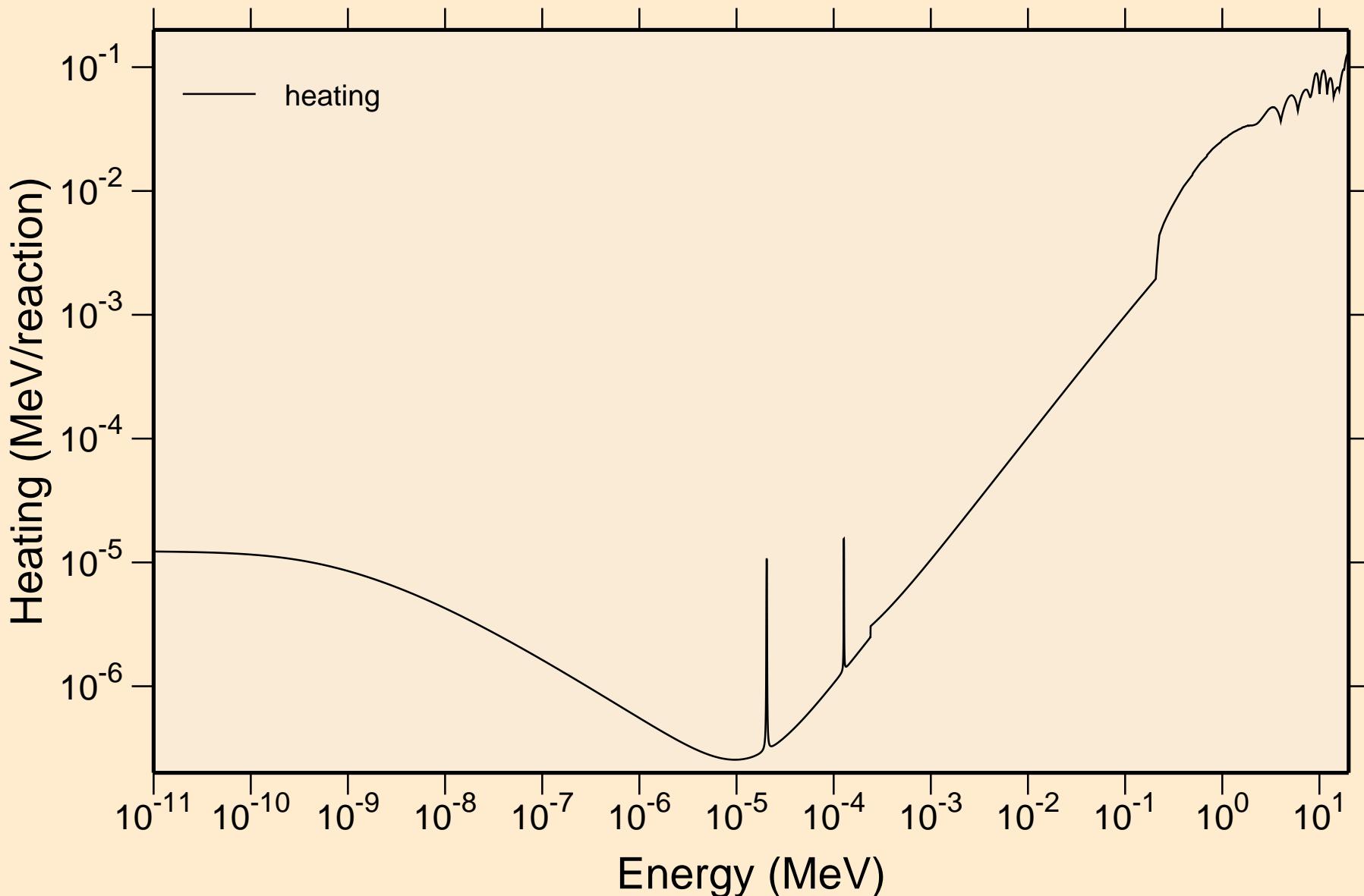
# ADVANCE CALCULATIONS

## UR capture cross section



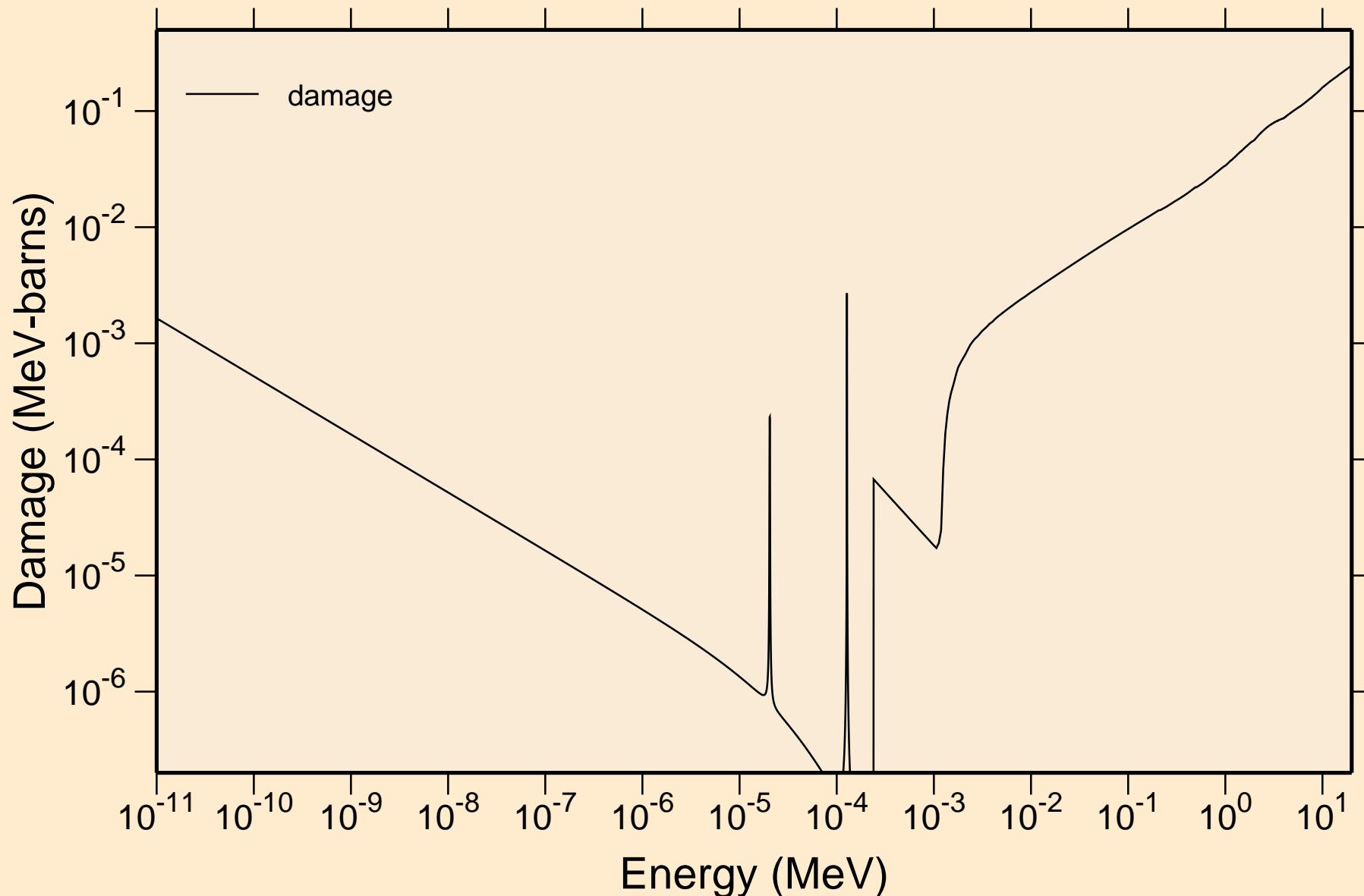
# ADVANCE CALCULATIONS

## Heating



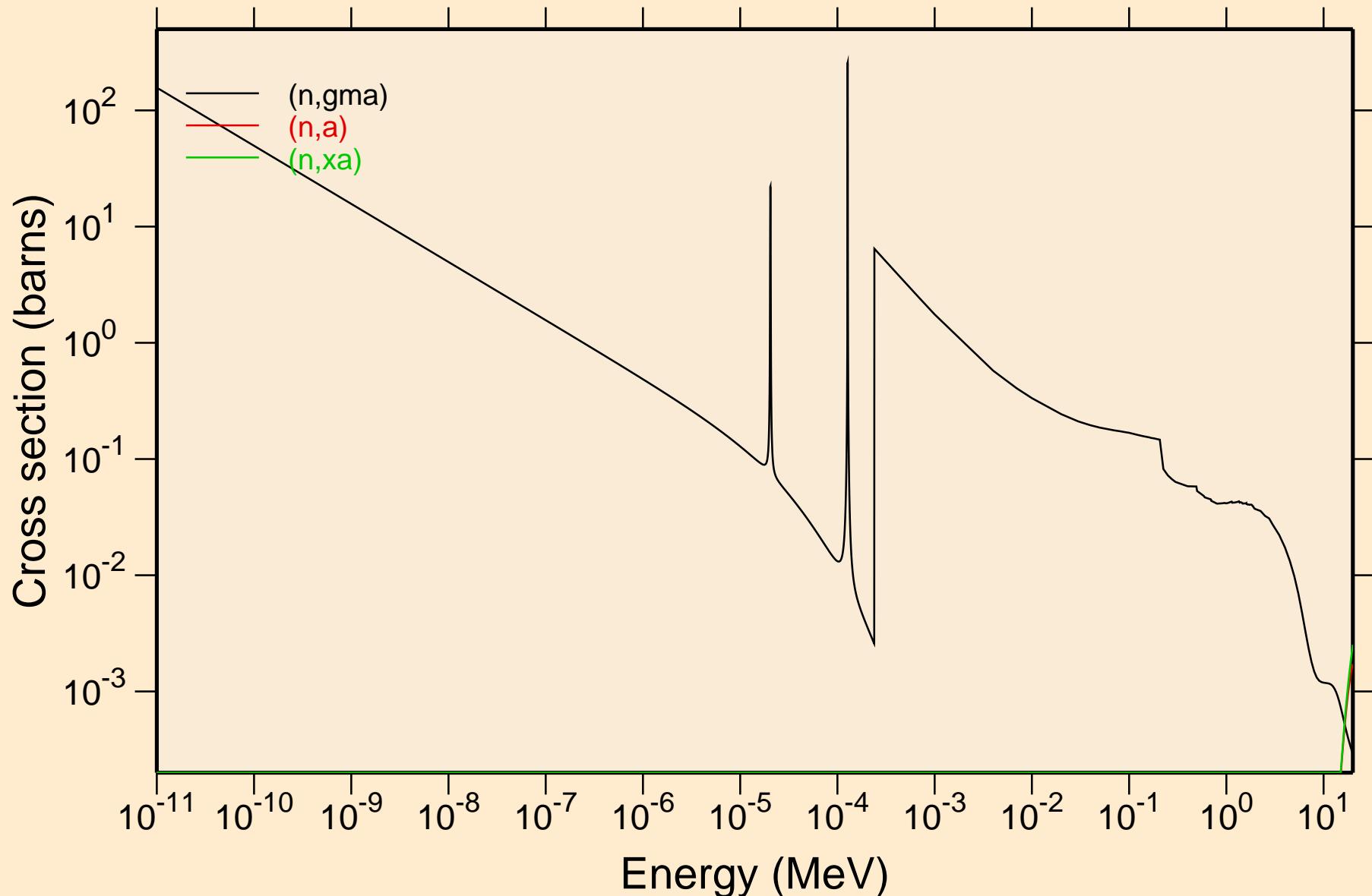
# ADVANCE CALCULATIONS

## Damage



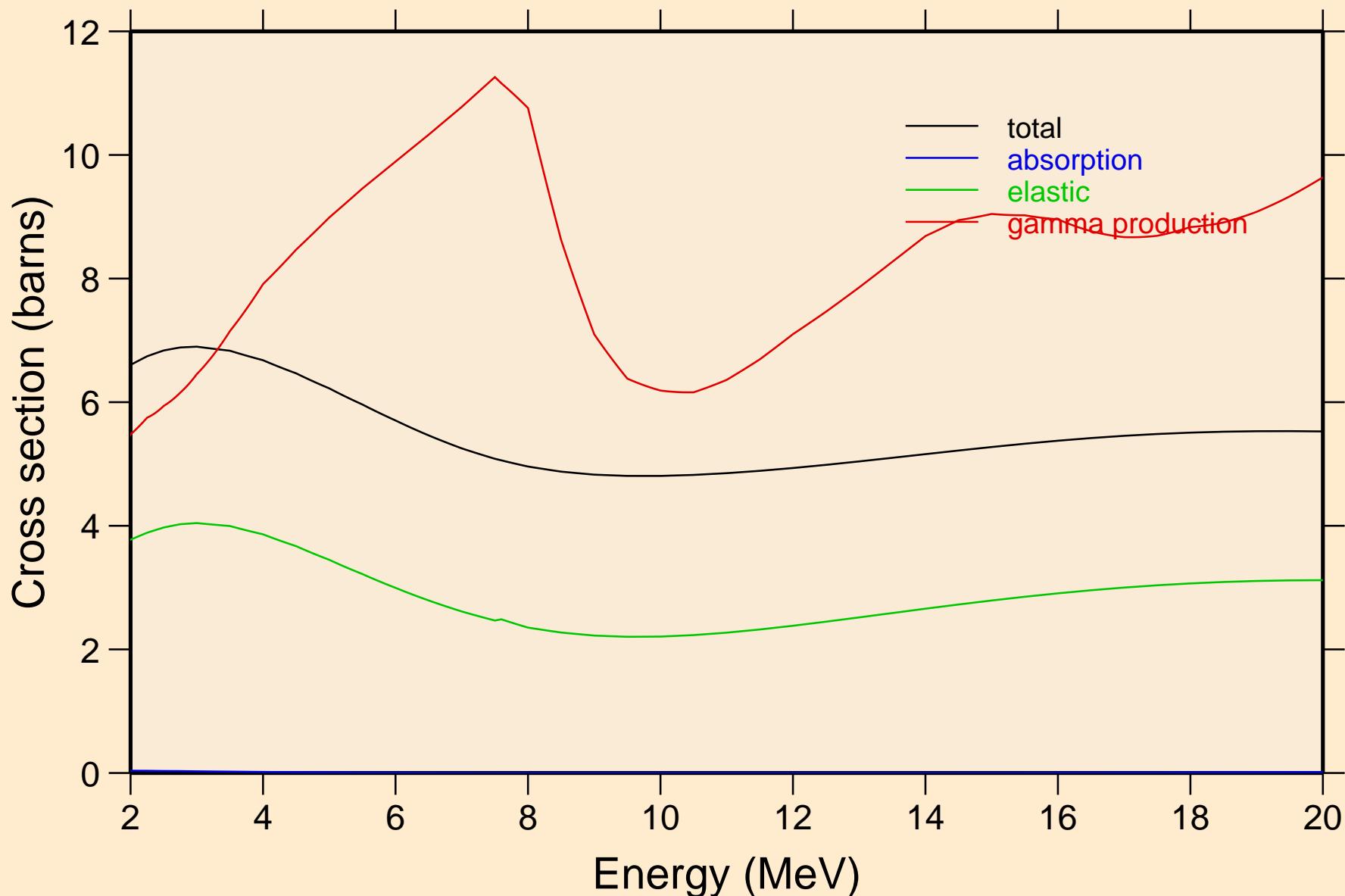
# ADVANCE CALCULATIONS

## Non-threshold reactions



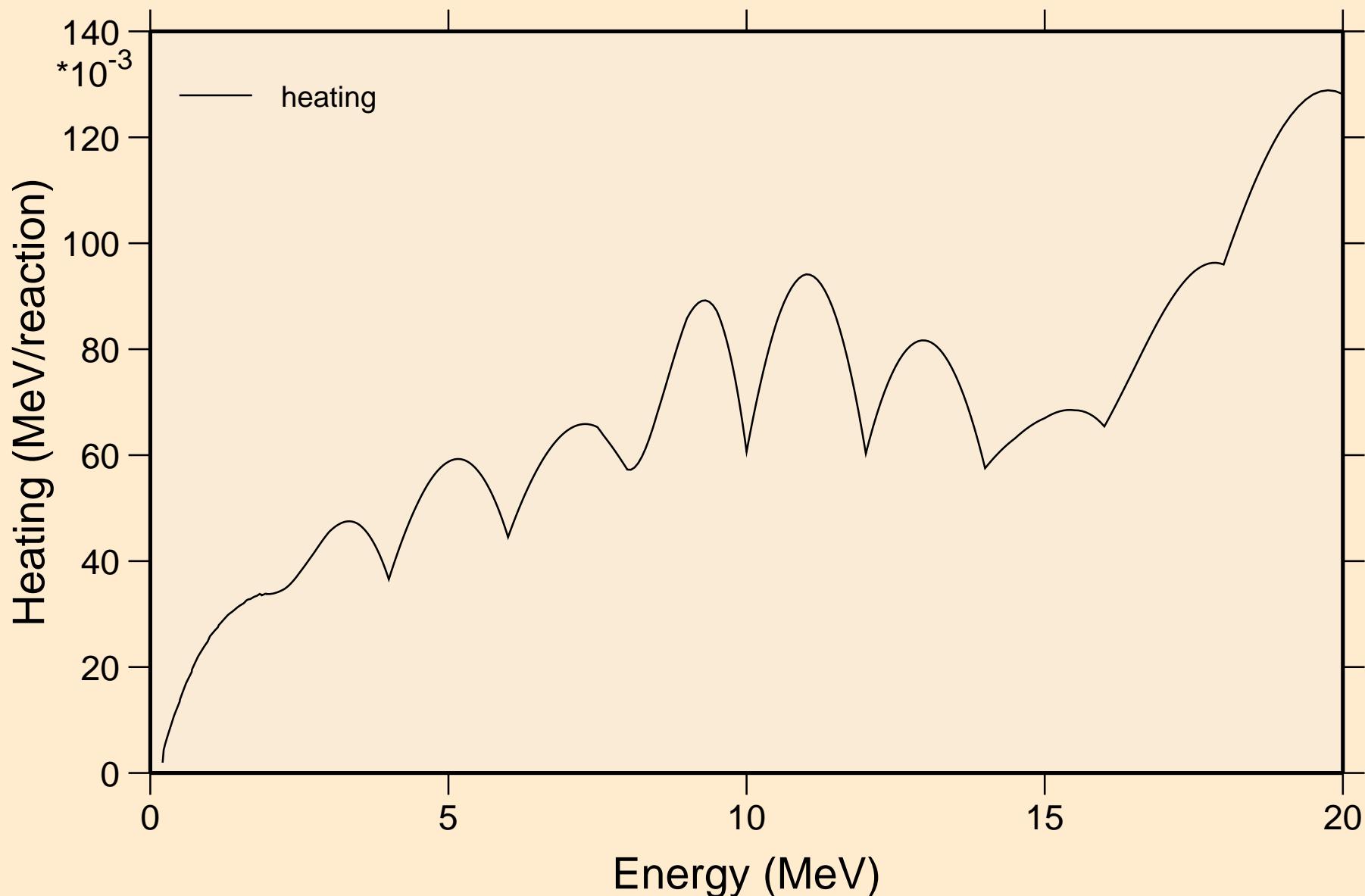
# ADVANCE CALCULATIONS

## Principal cross sections



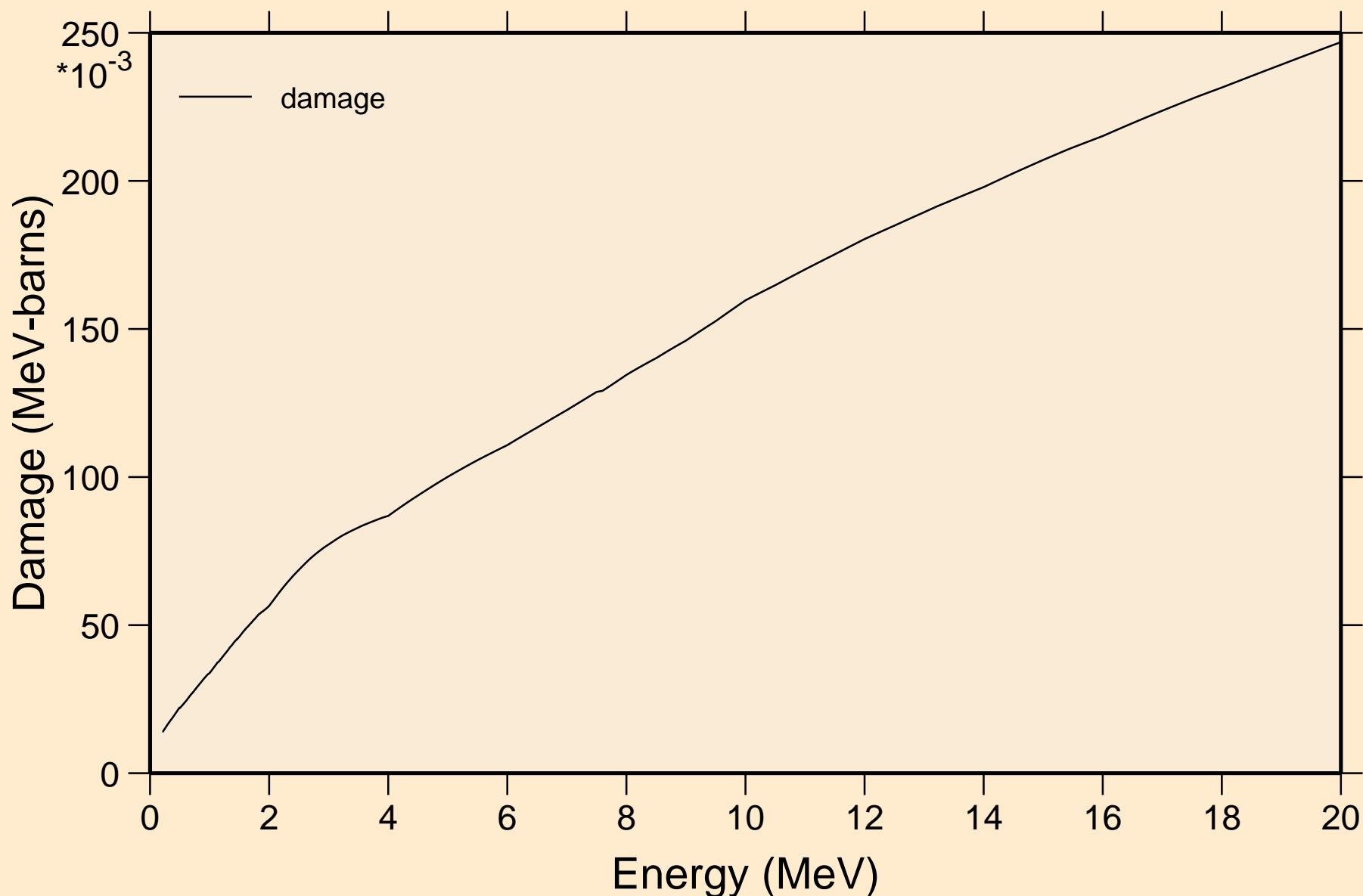
# ADVANCE CALCULATIONS

## Heating



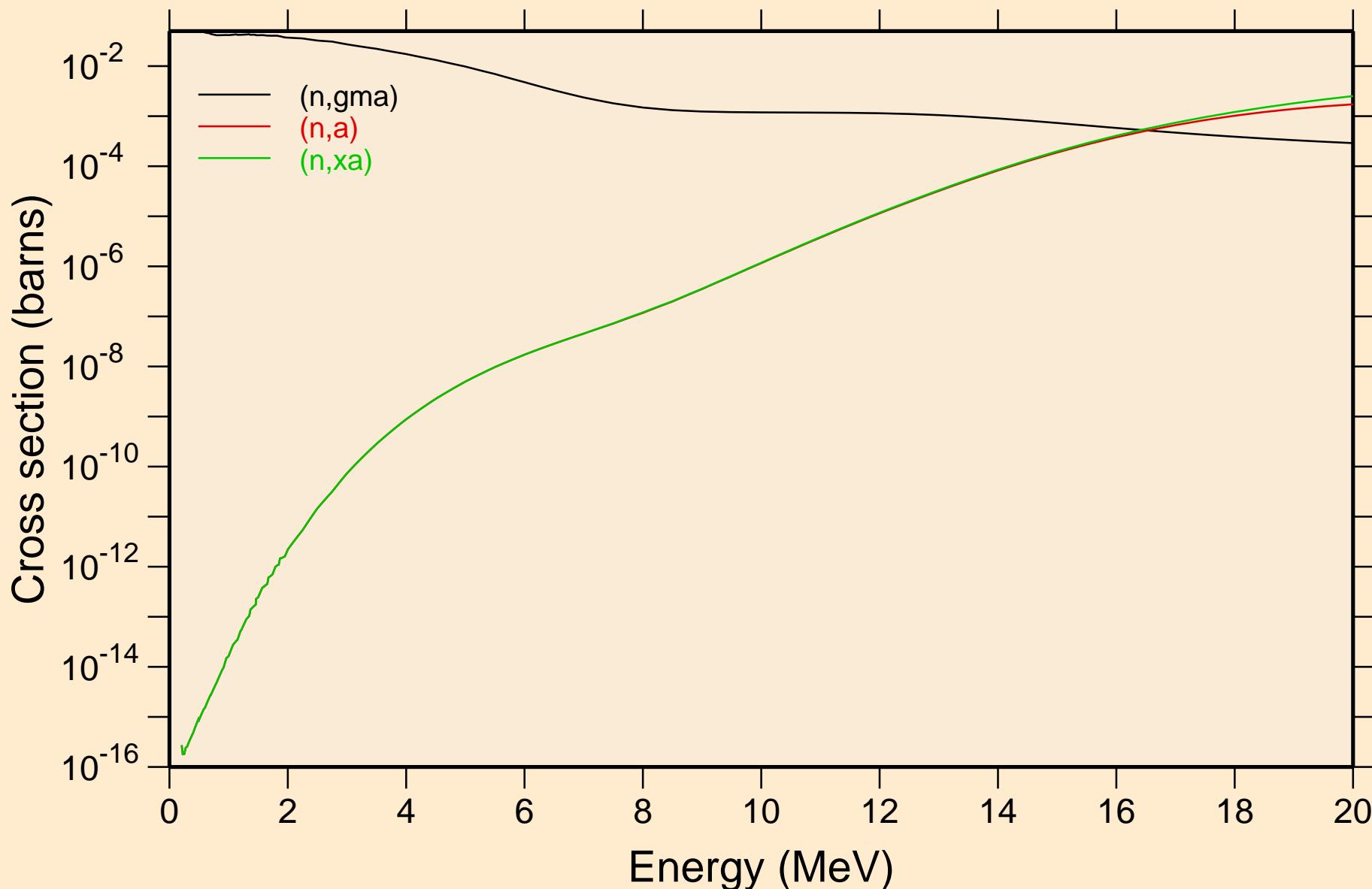
# ADVANCE CALCULATIONS

## Damage



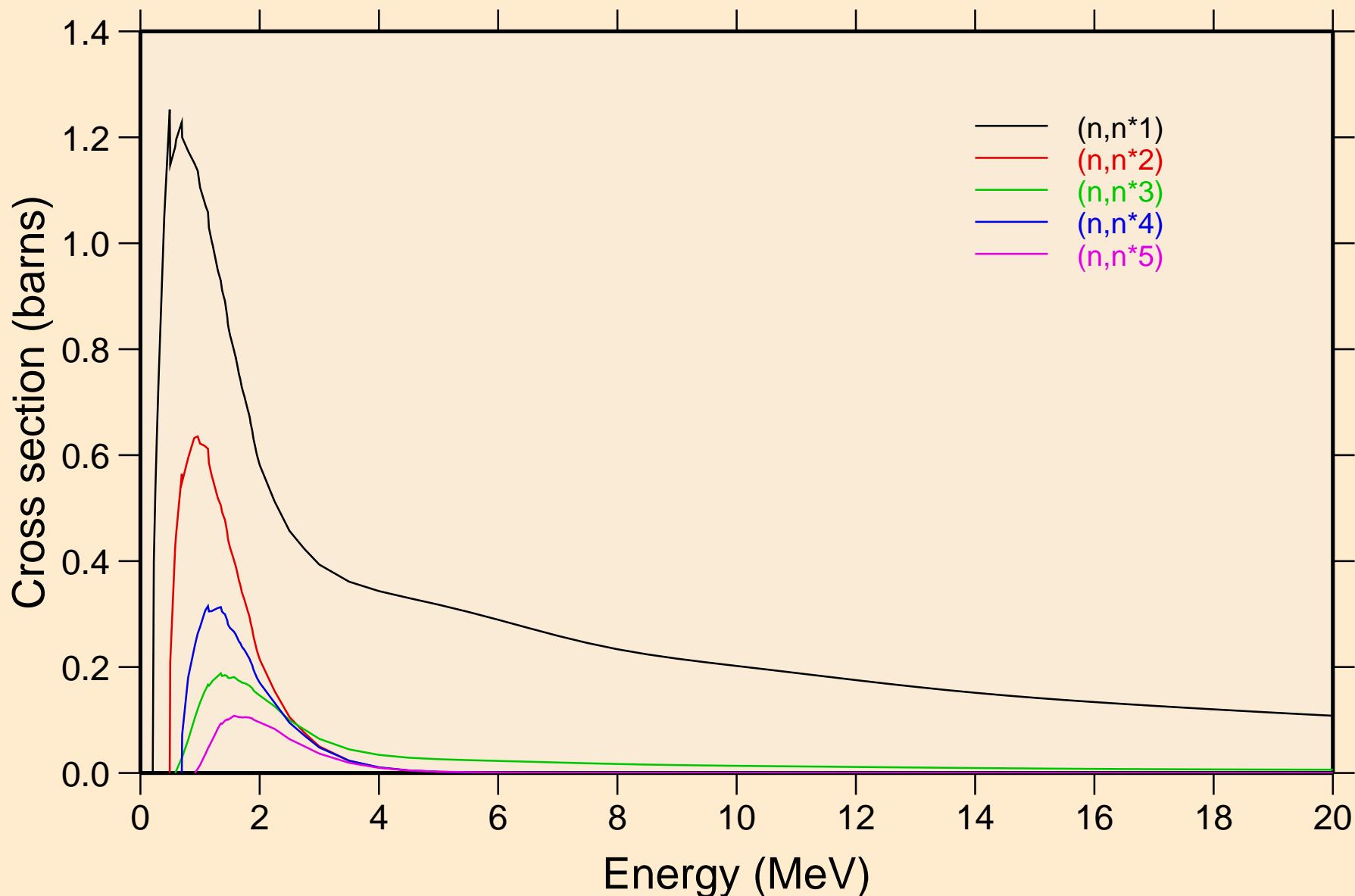
# ADVANCE CALCULATIONS

## Non-threshold reactions



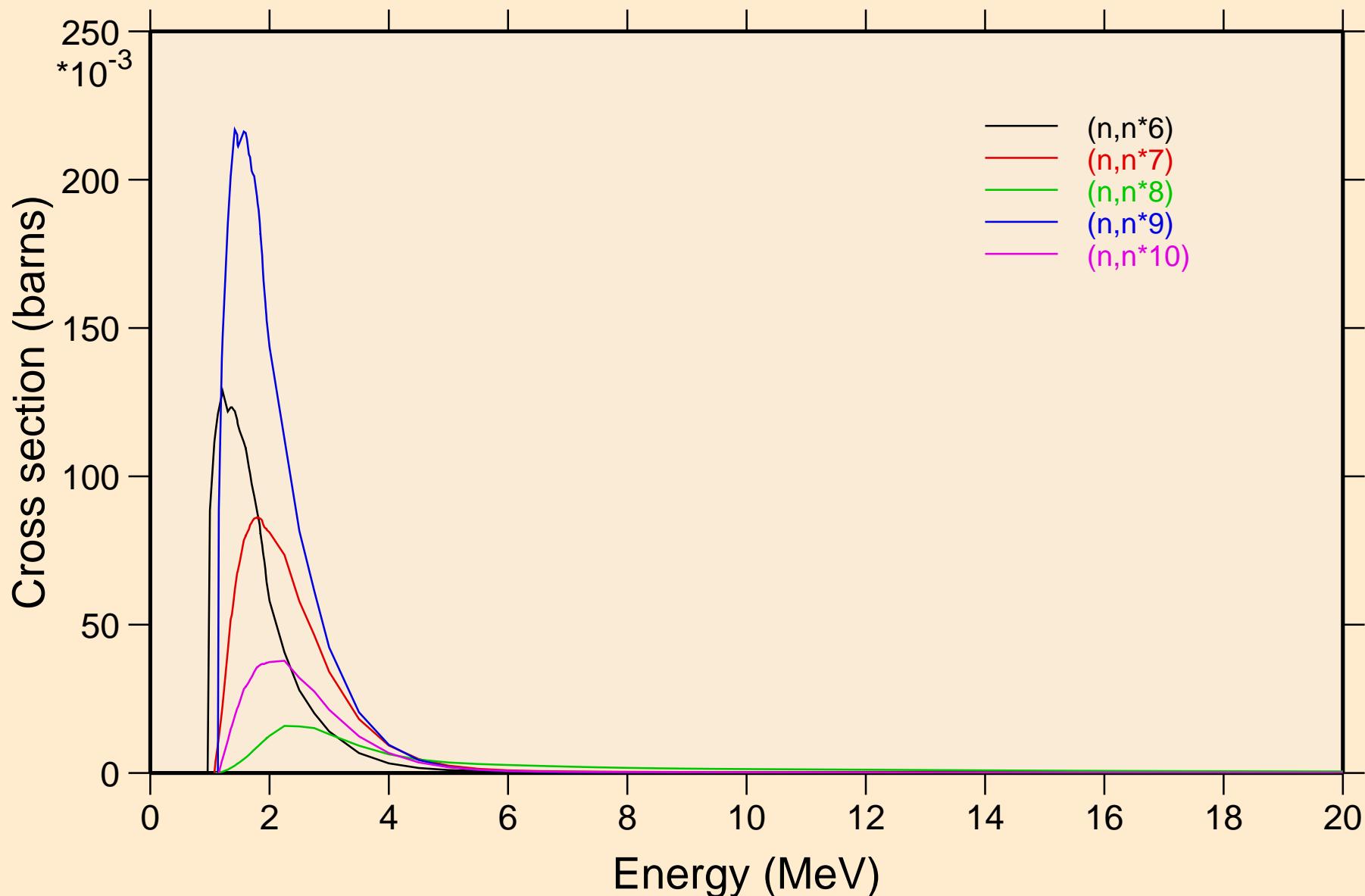
# ADVANCE CALCULATIONS

## Inelastic levels



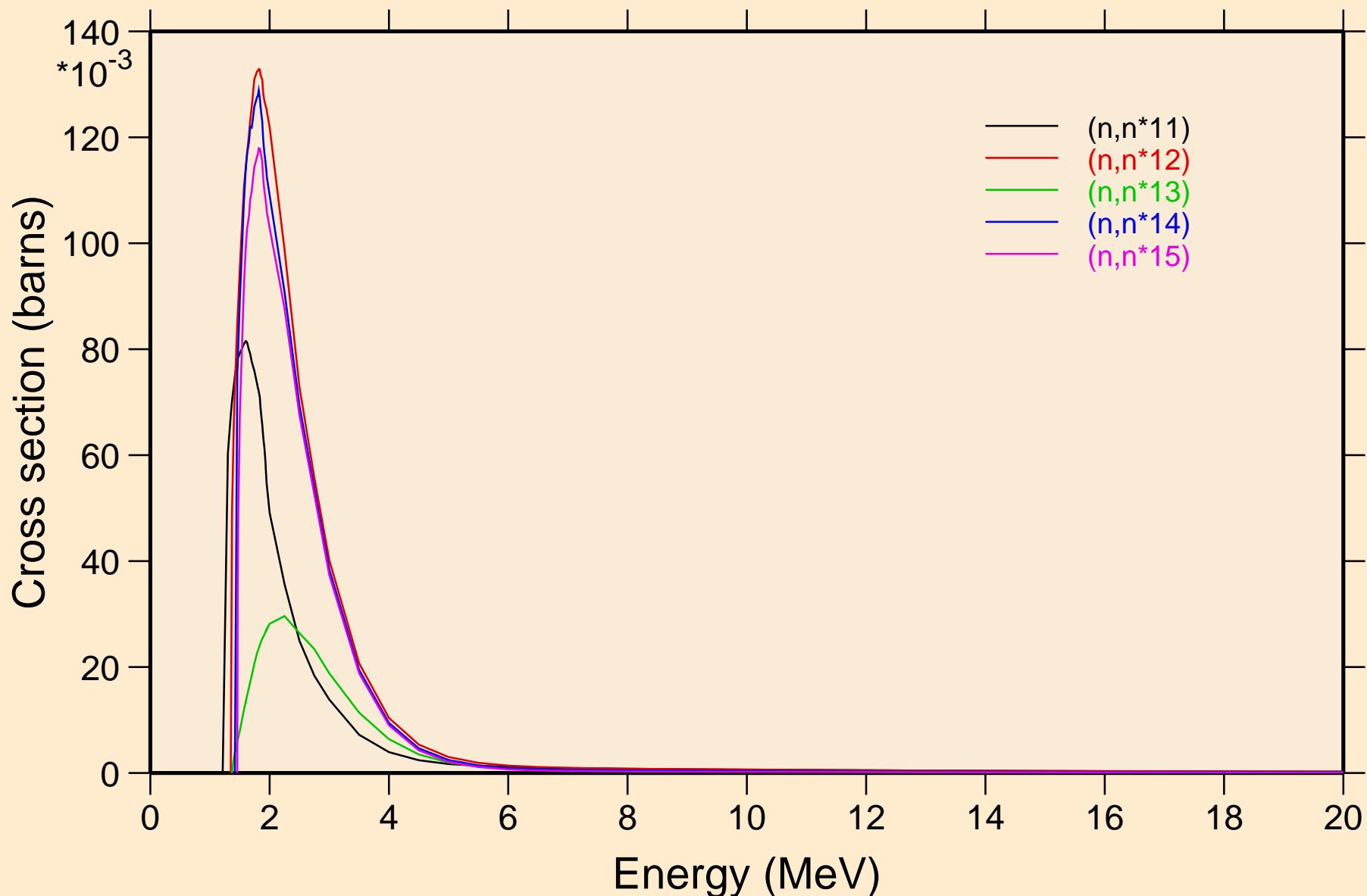
# ADVANCE CALCULATIONS

## Inelastic levels



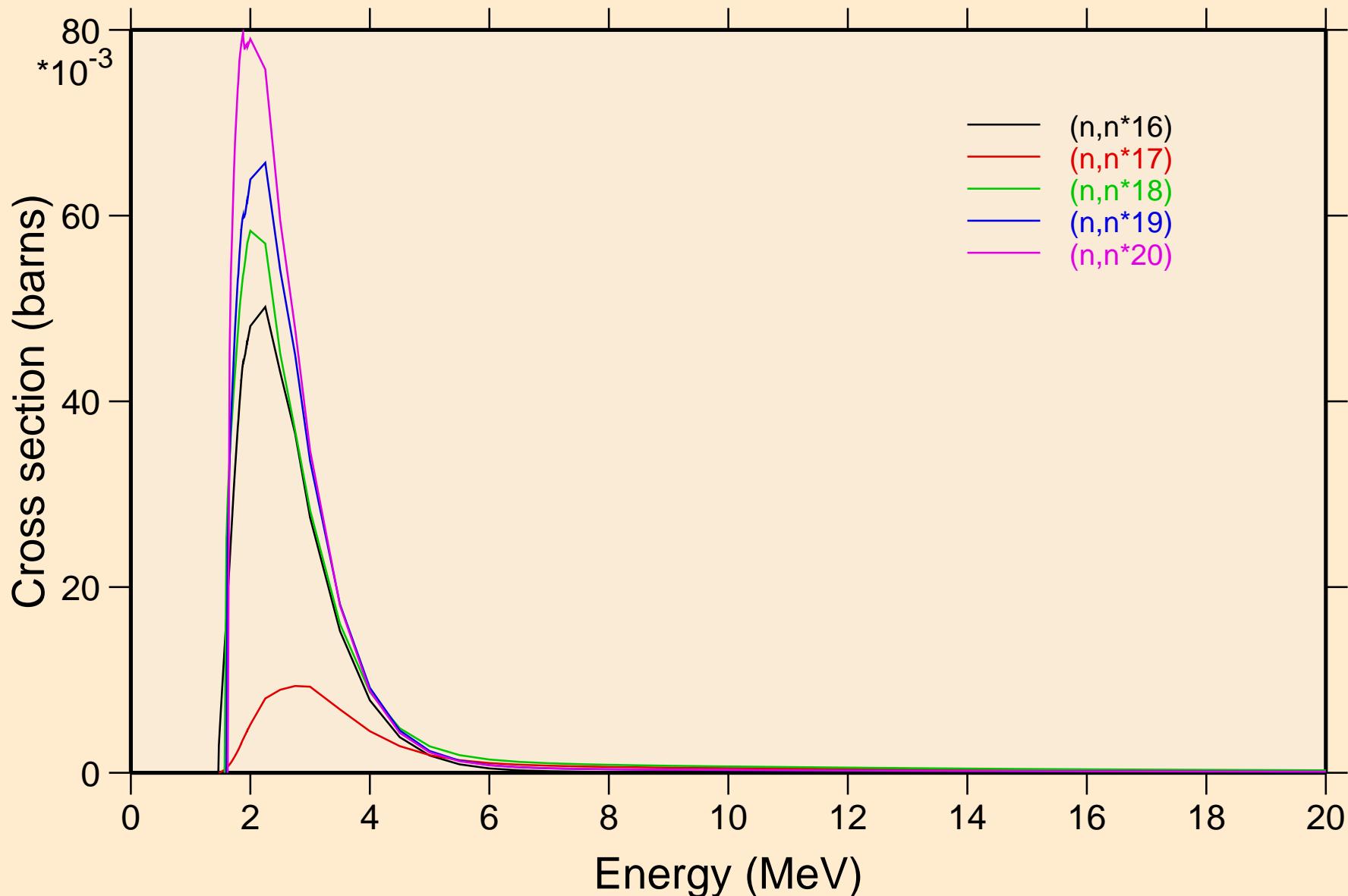
# ADVANCE CALCULATIONS

## Inelastic levels



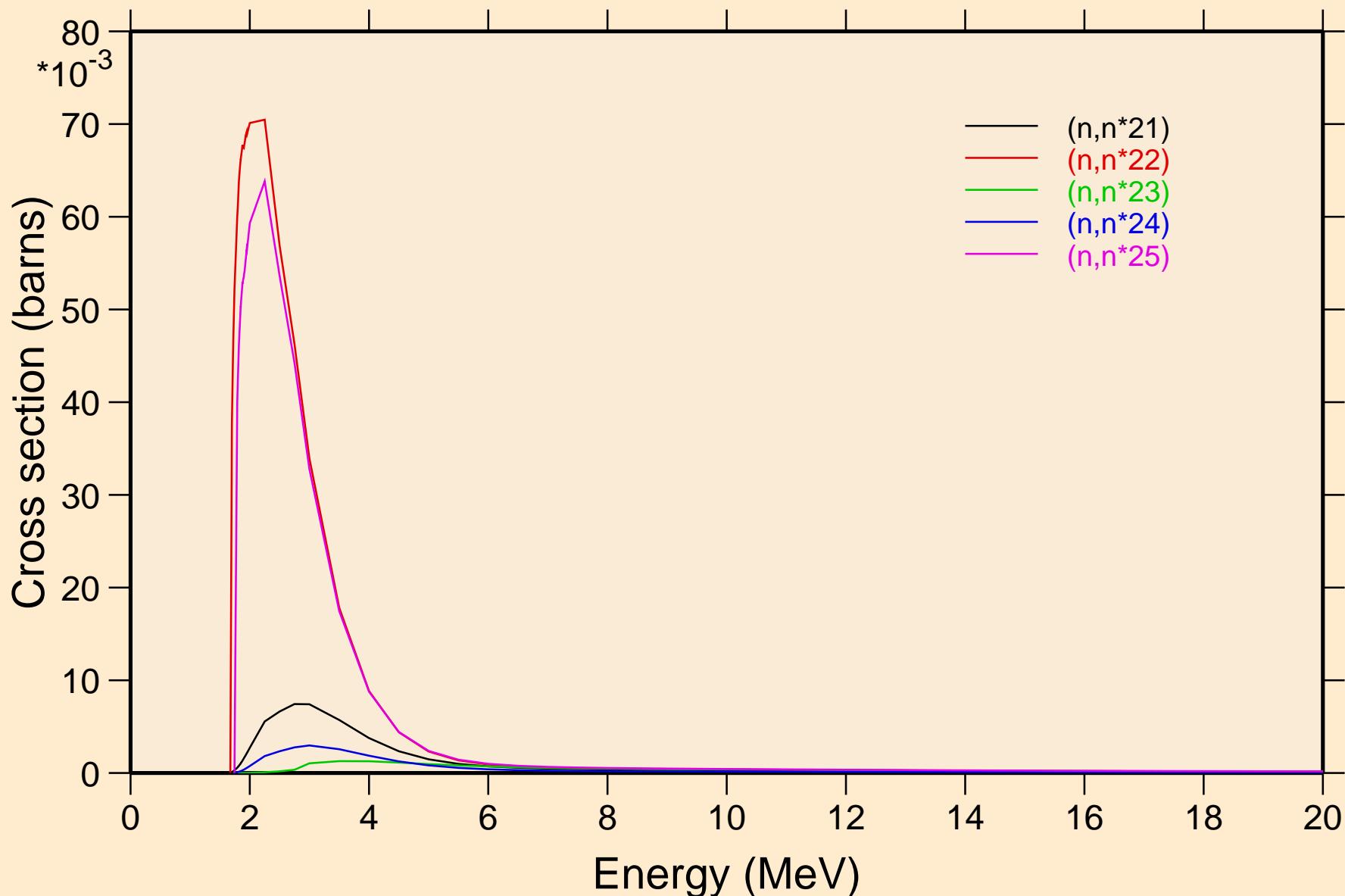
# ADVANCE CALCULATIONS

## Inelastic levels



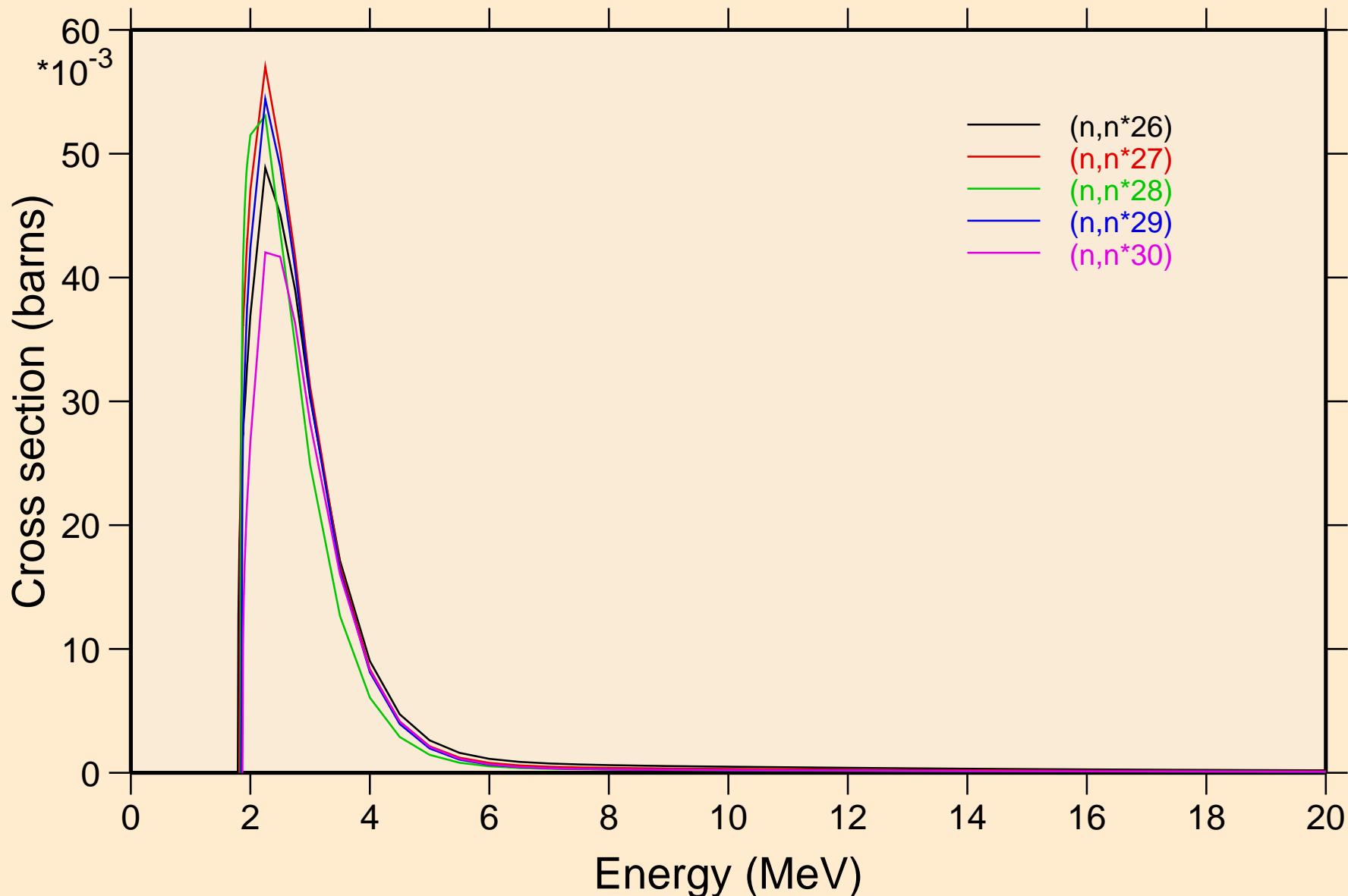
# ADVANCE CALCULATIONS

## Inelastic levels



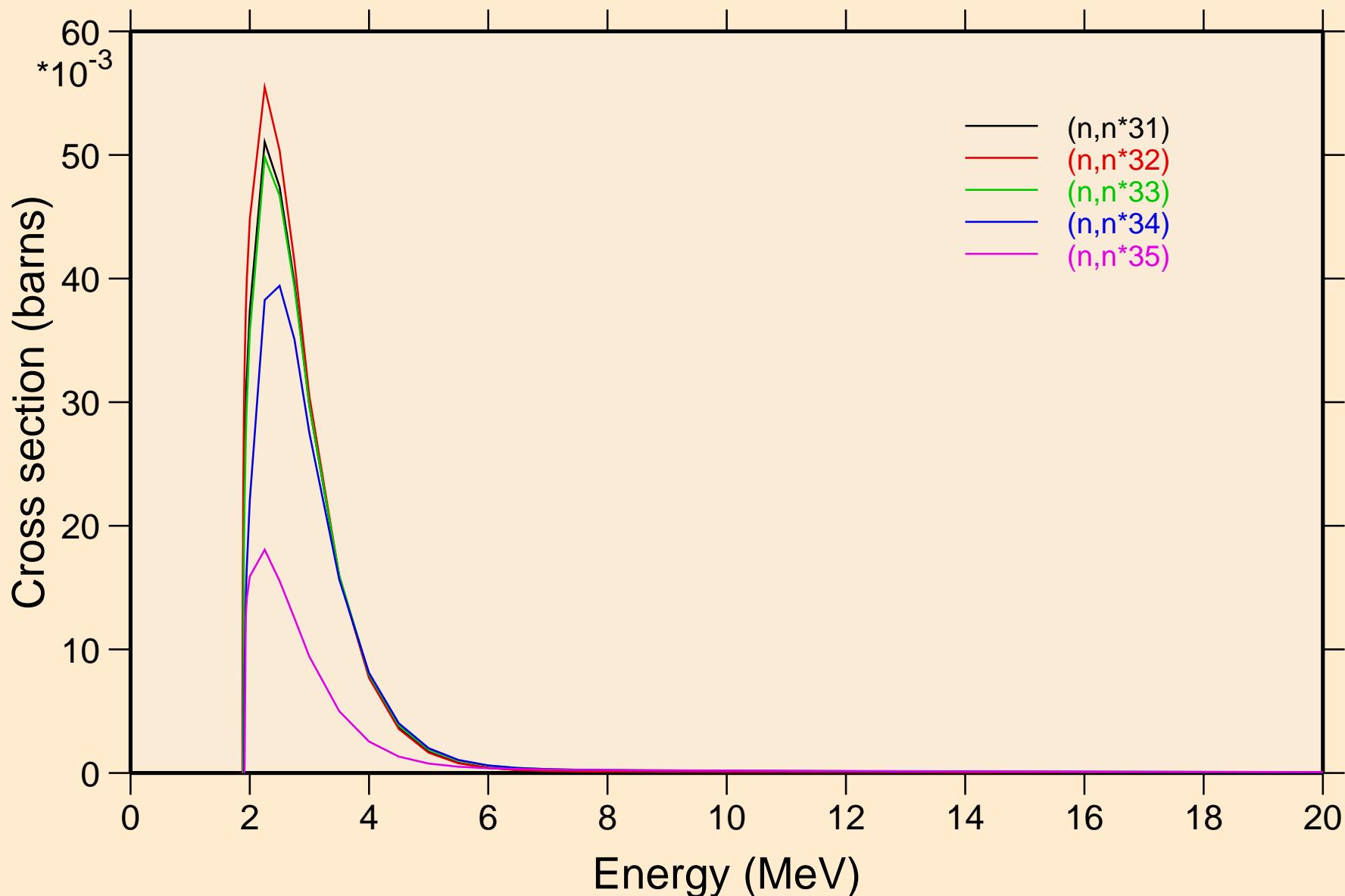
# ADVANCE CALCULATIONS

## Inelastic levels



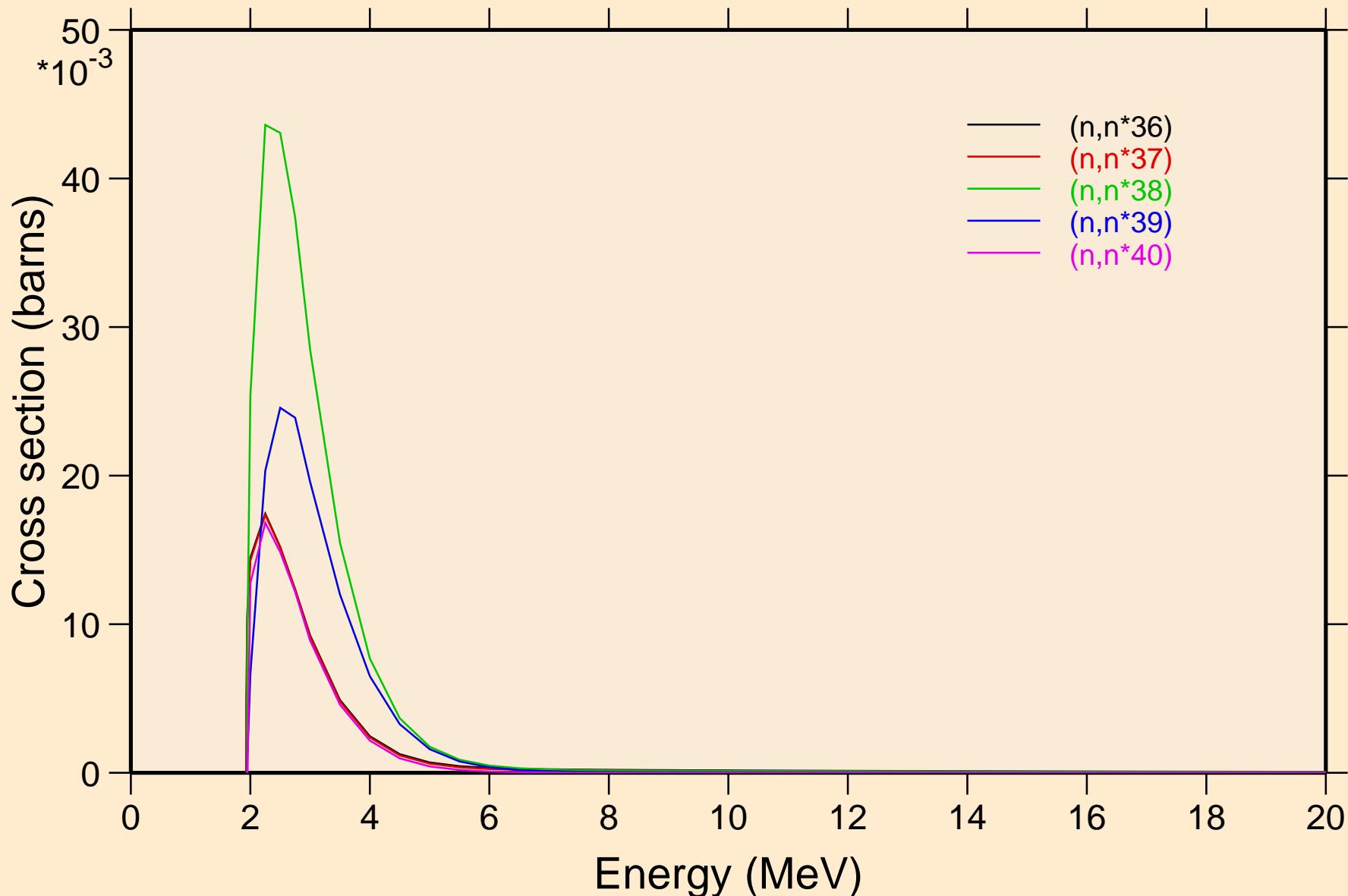
# ADVANCE CALCULATIONS

## Inelastic levels



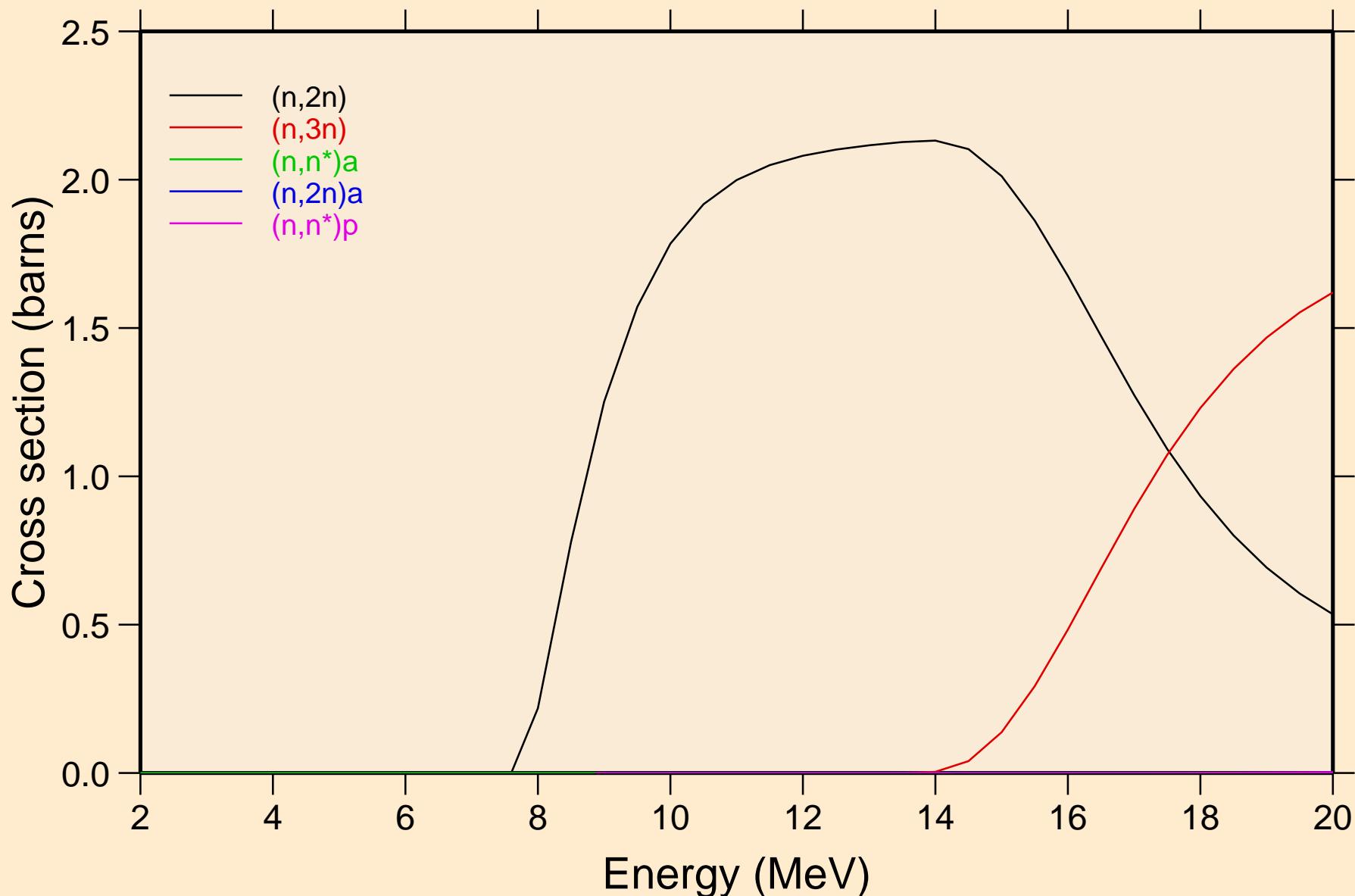
# ADVANCE CALCULATIONS

## Inelastic levels



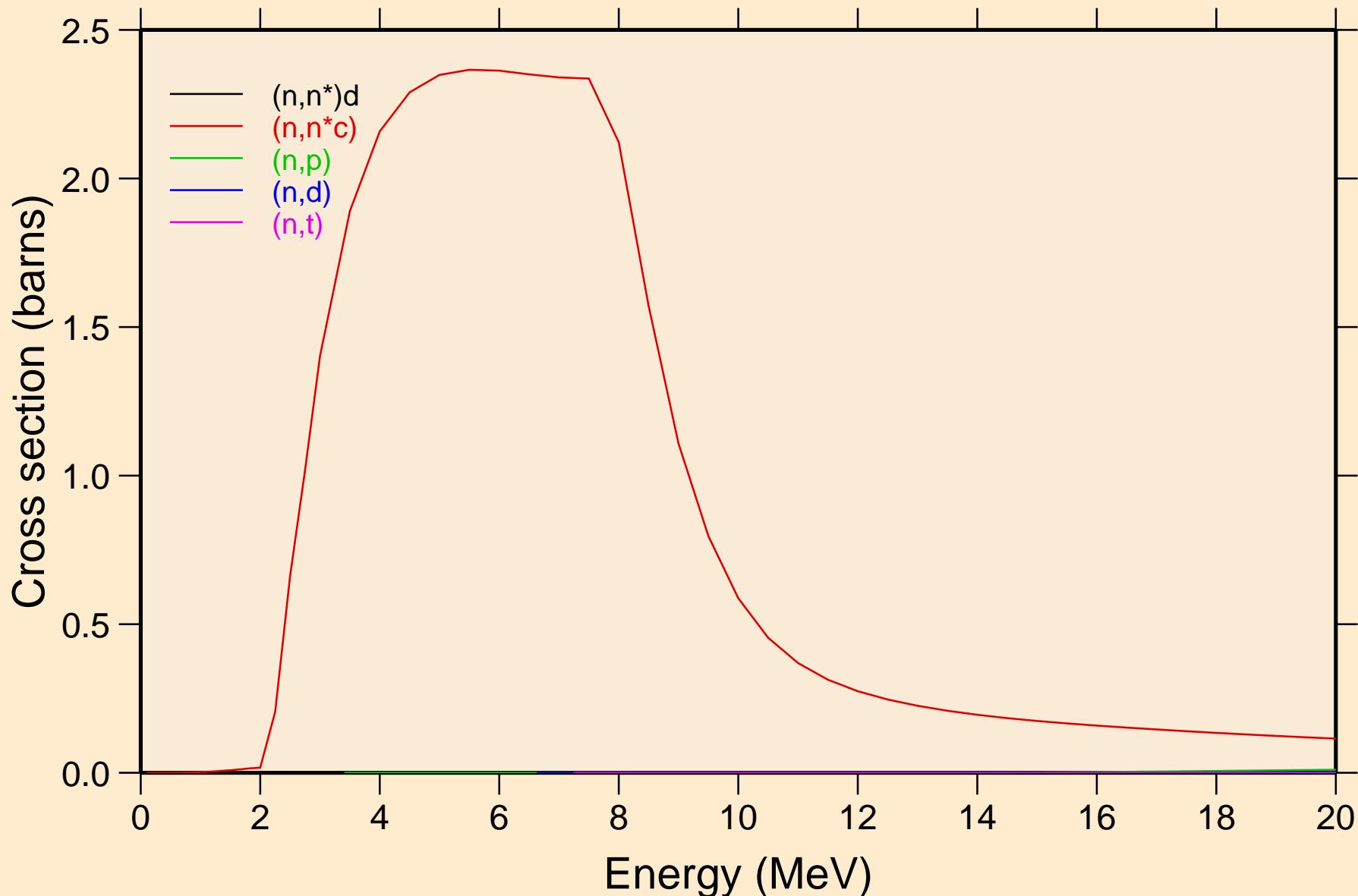
# ADVANCE CALCULATIONS

## Threshold reactions



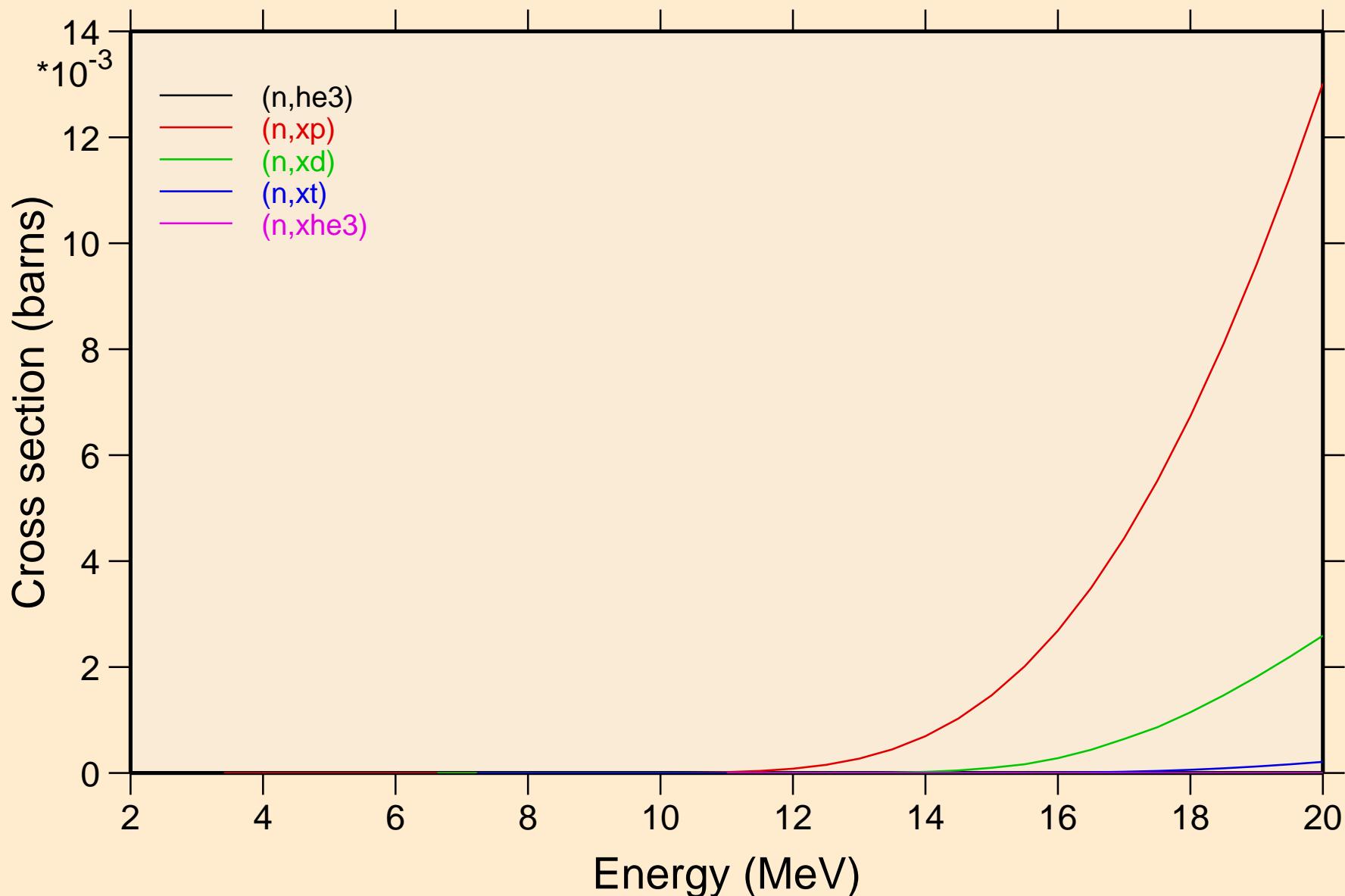
# ADVANCE CALCULATIONS

## Threshold reactions



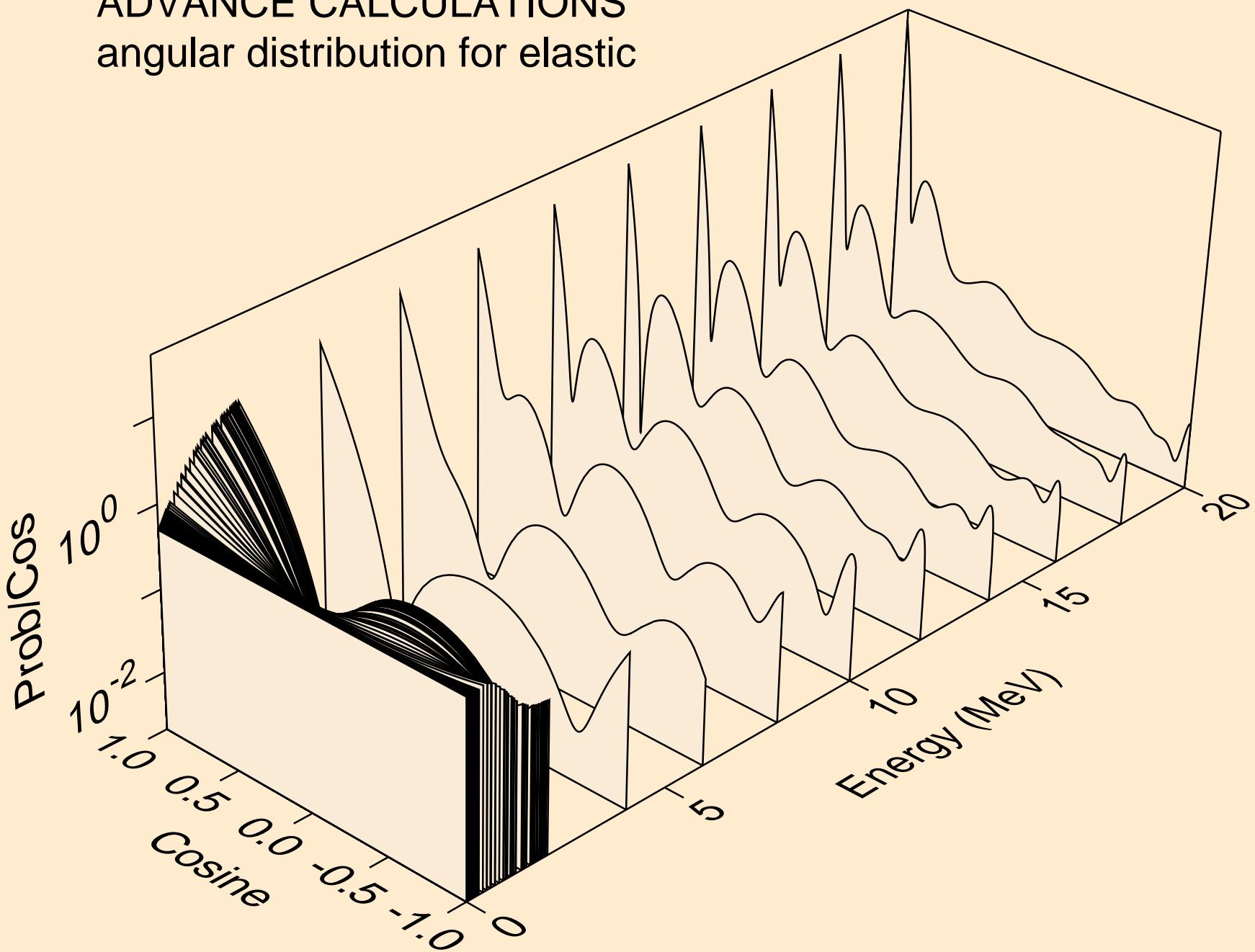
# ADVANCE CALCULATIONS

## Threshold reactions



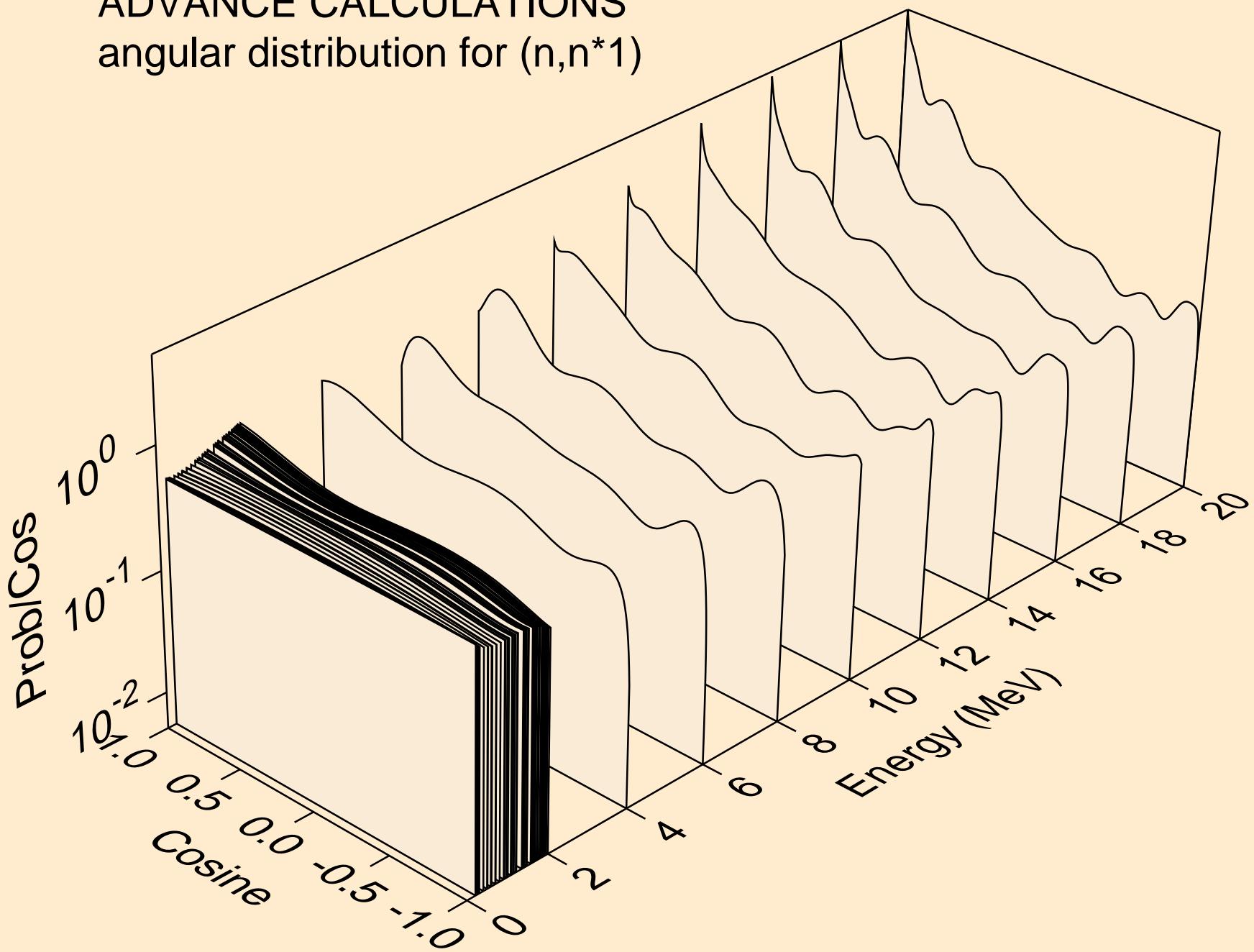
# ADVANCE CALCULATIONS

angular distribution for elastic



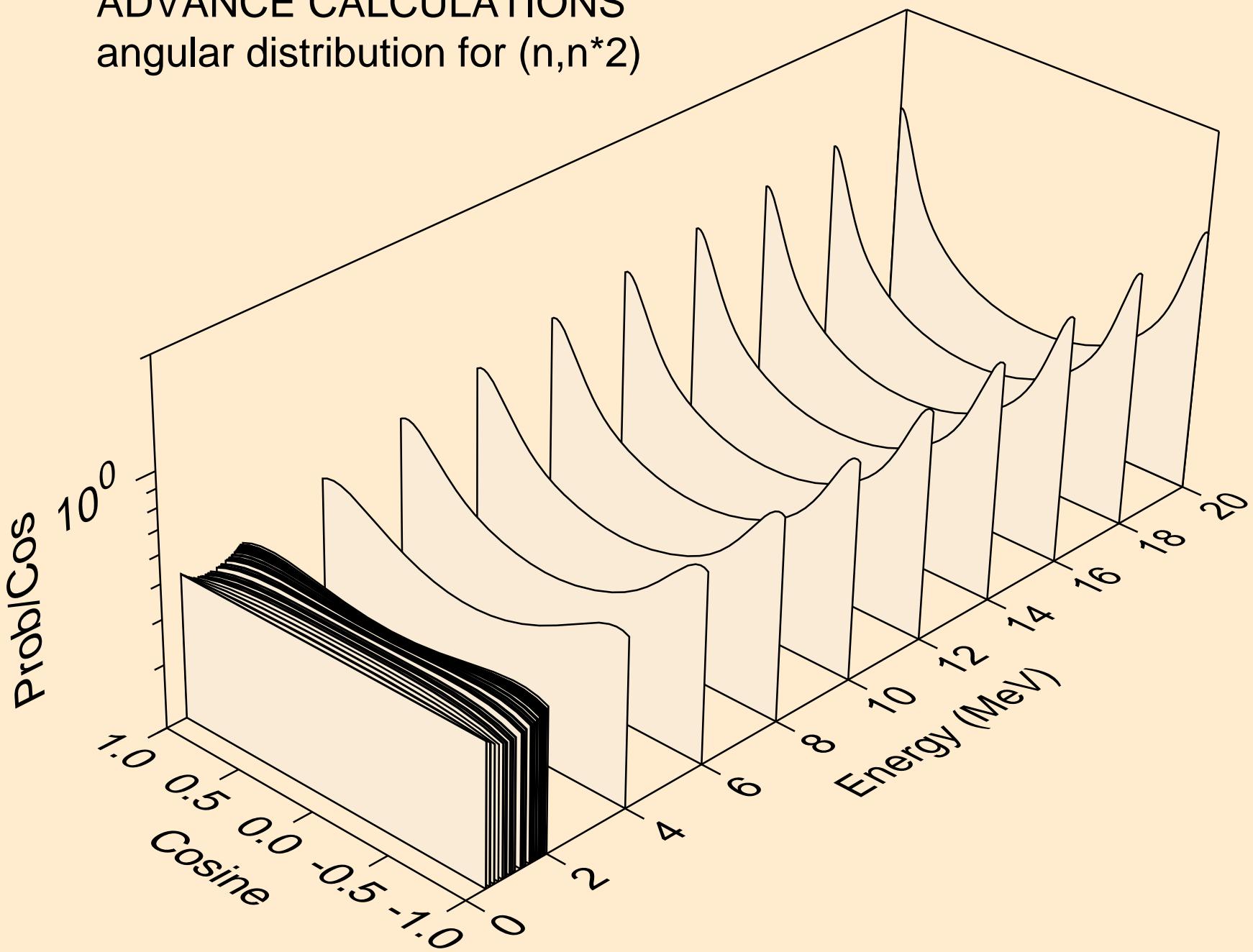
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*1)



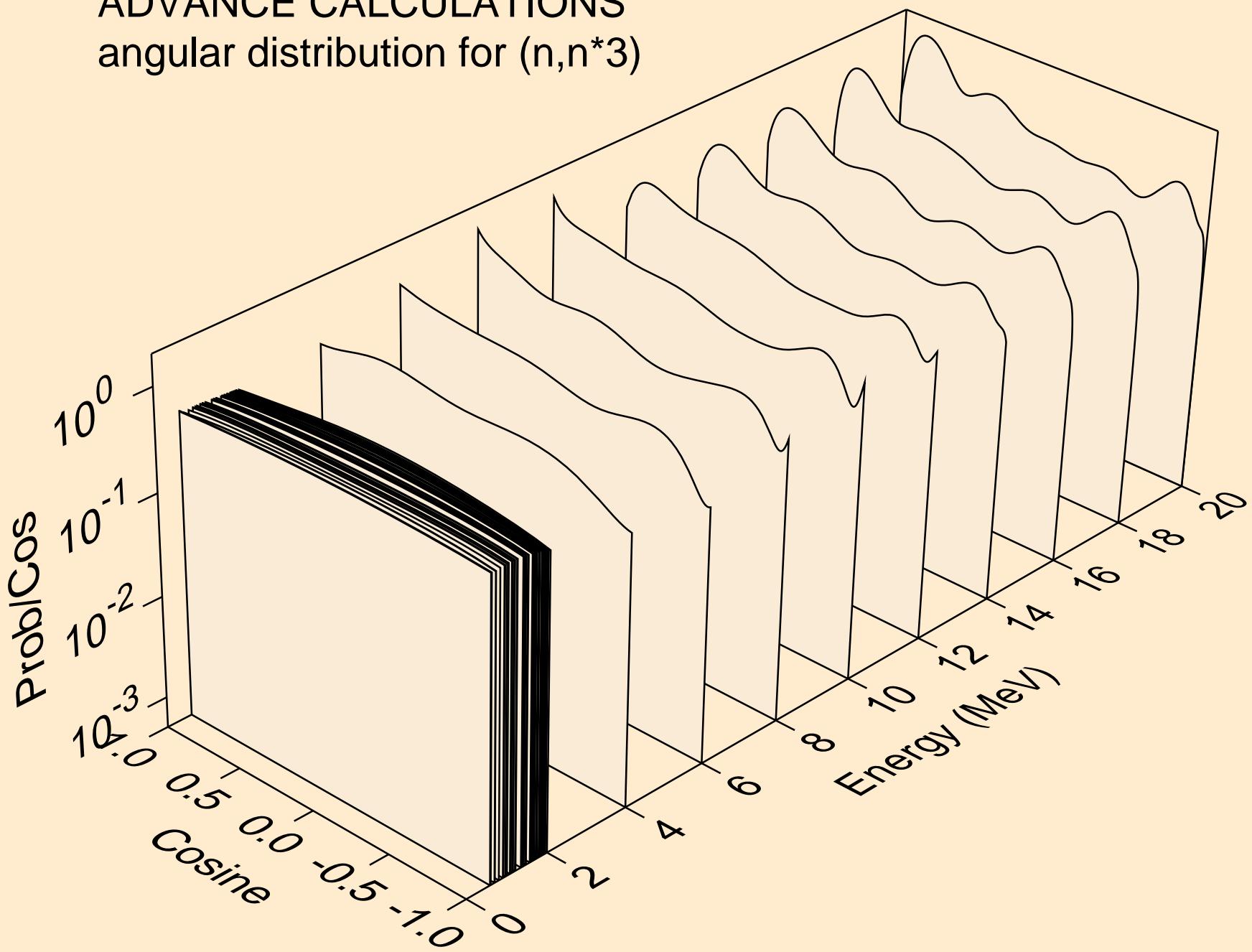
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*)^2$



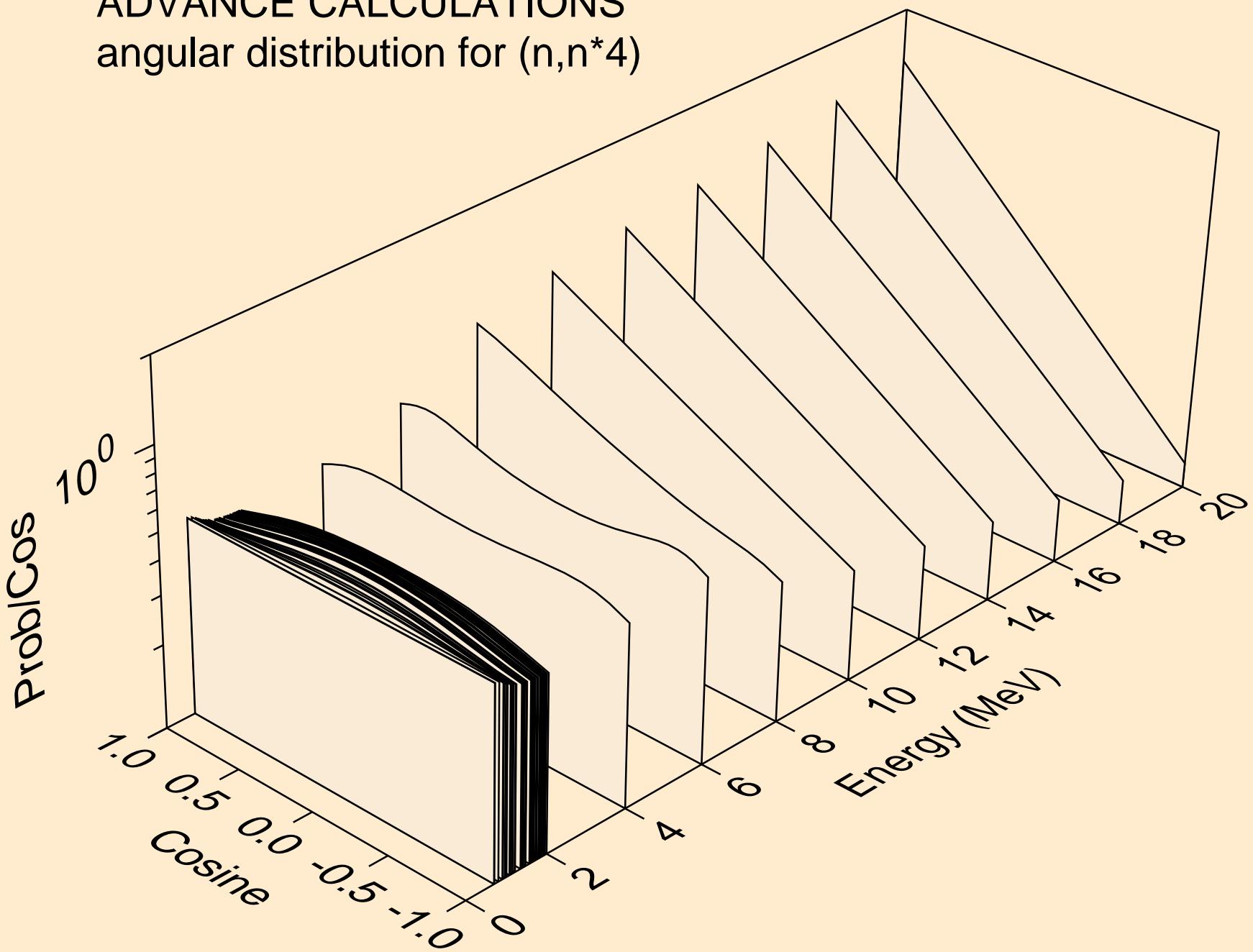
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*)^3$



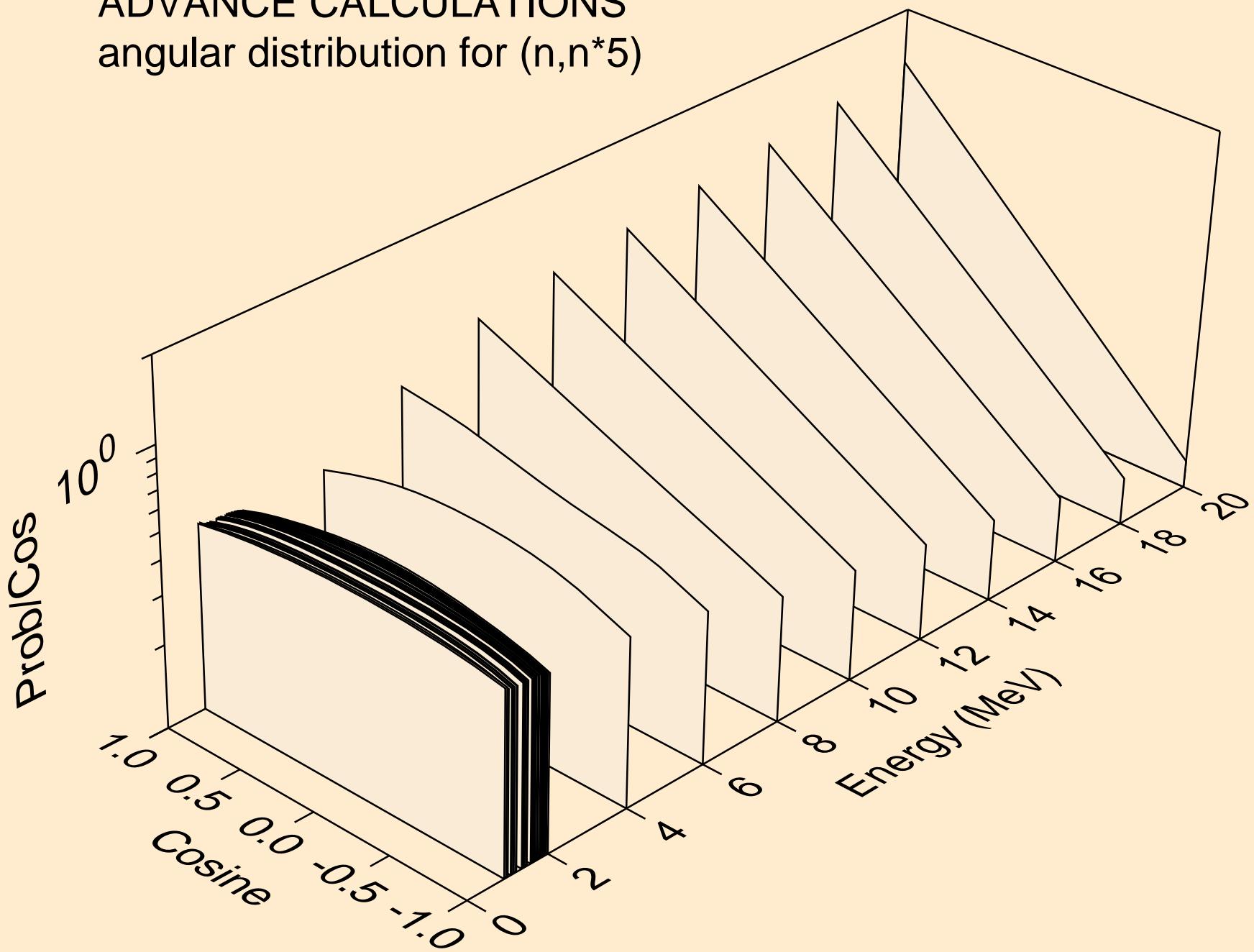
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*4)$



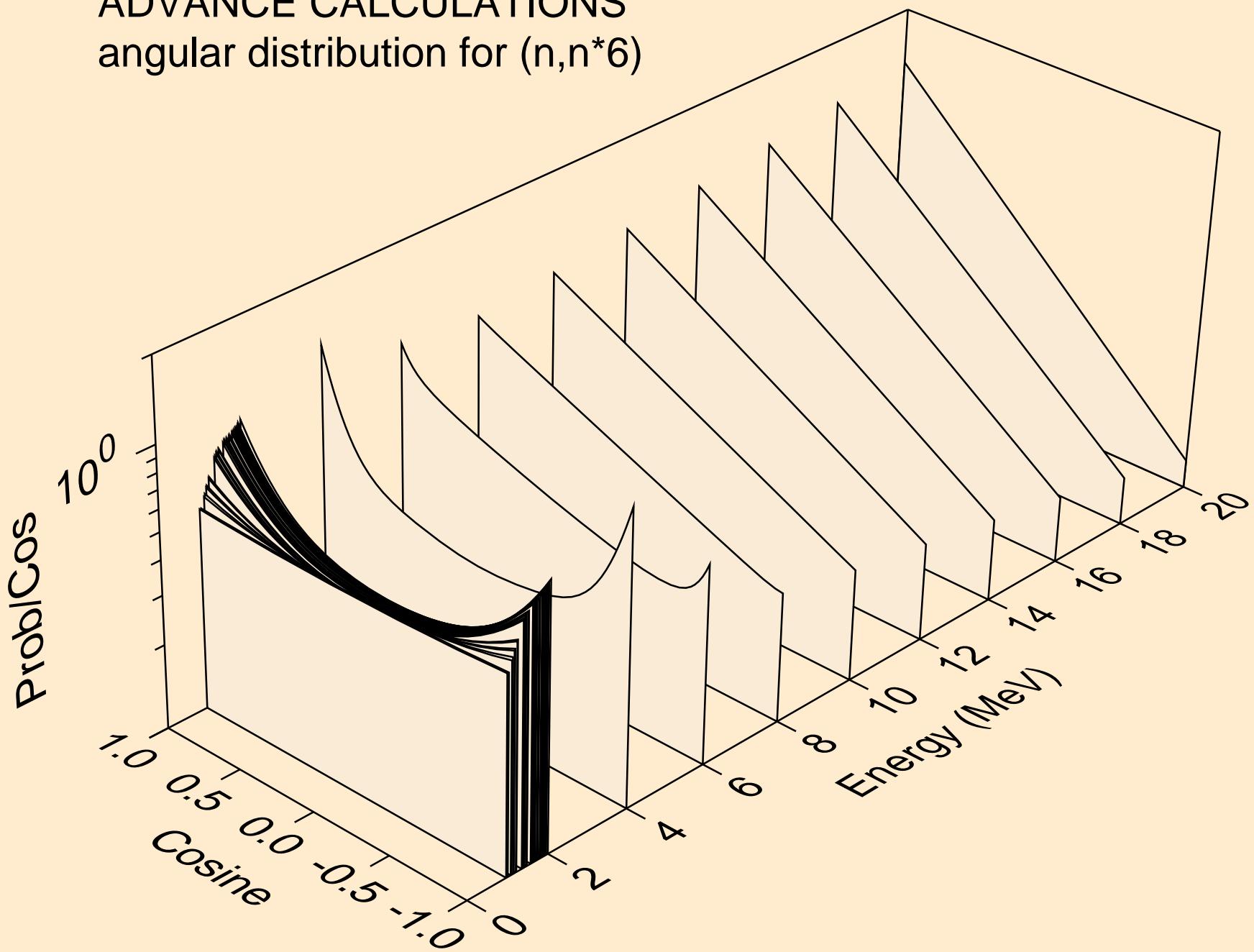
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*)$



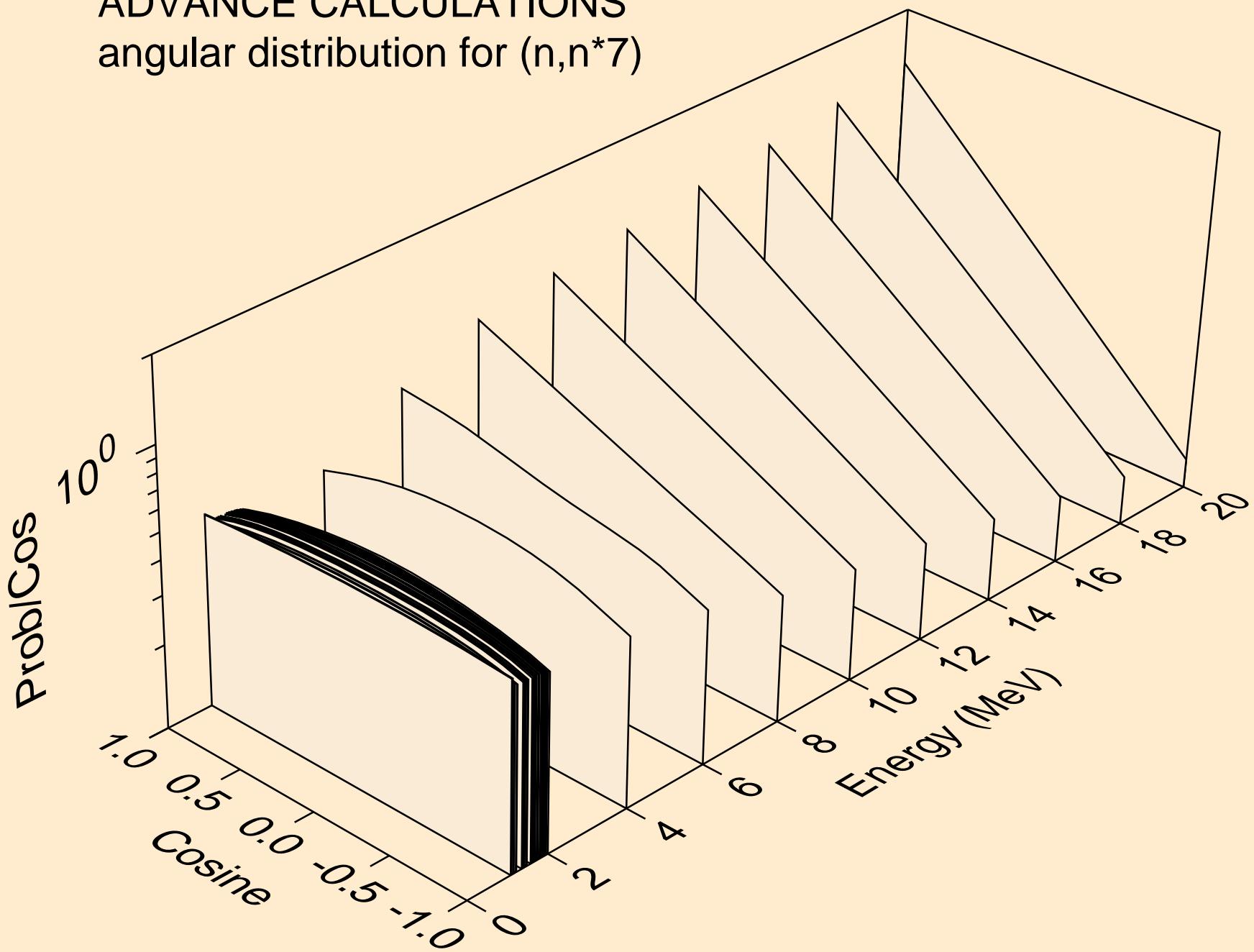
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*6)$



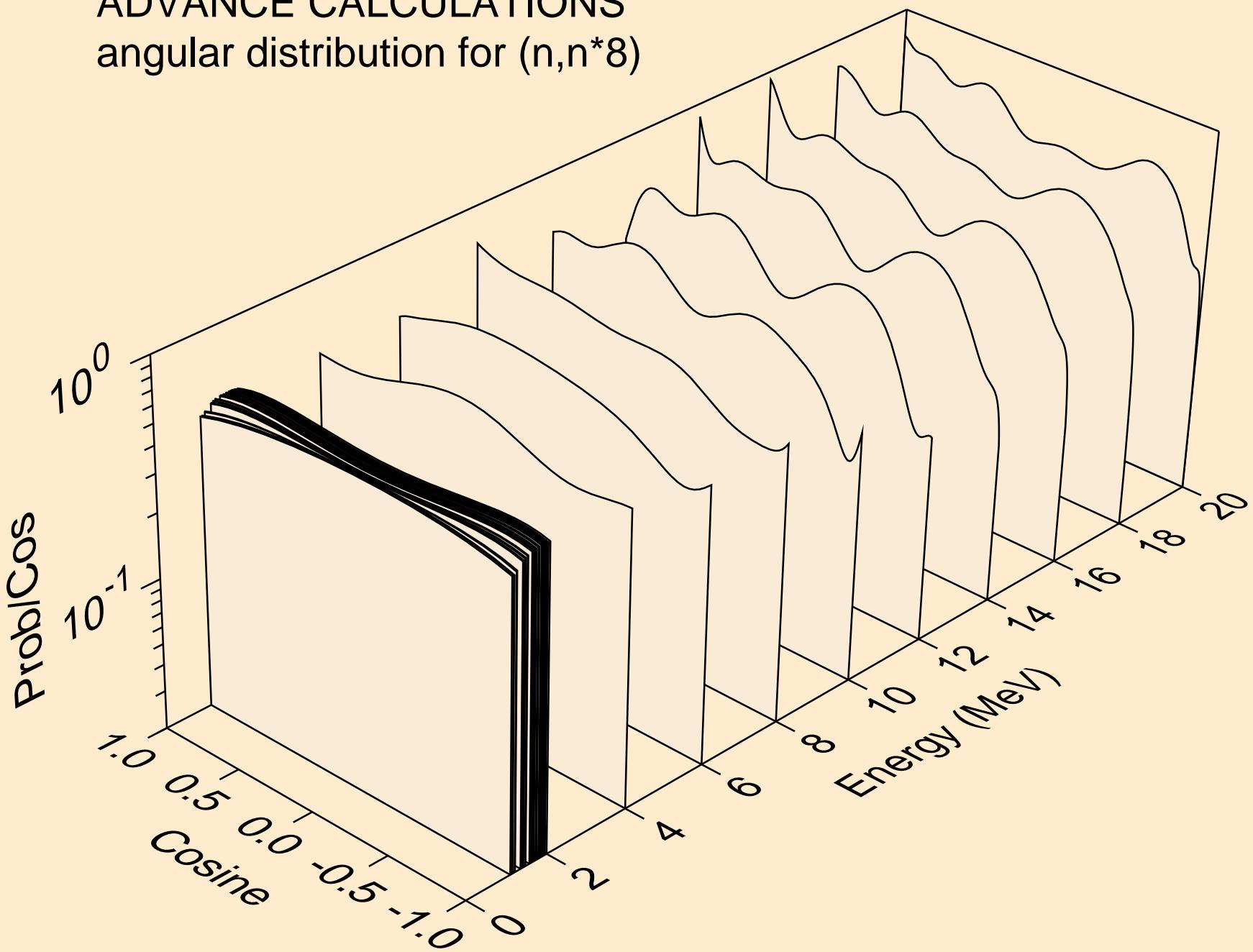
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*7)$



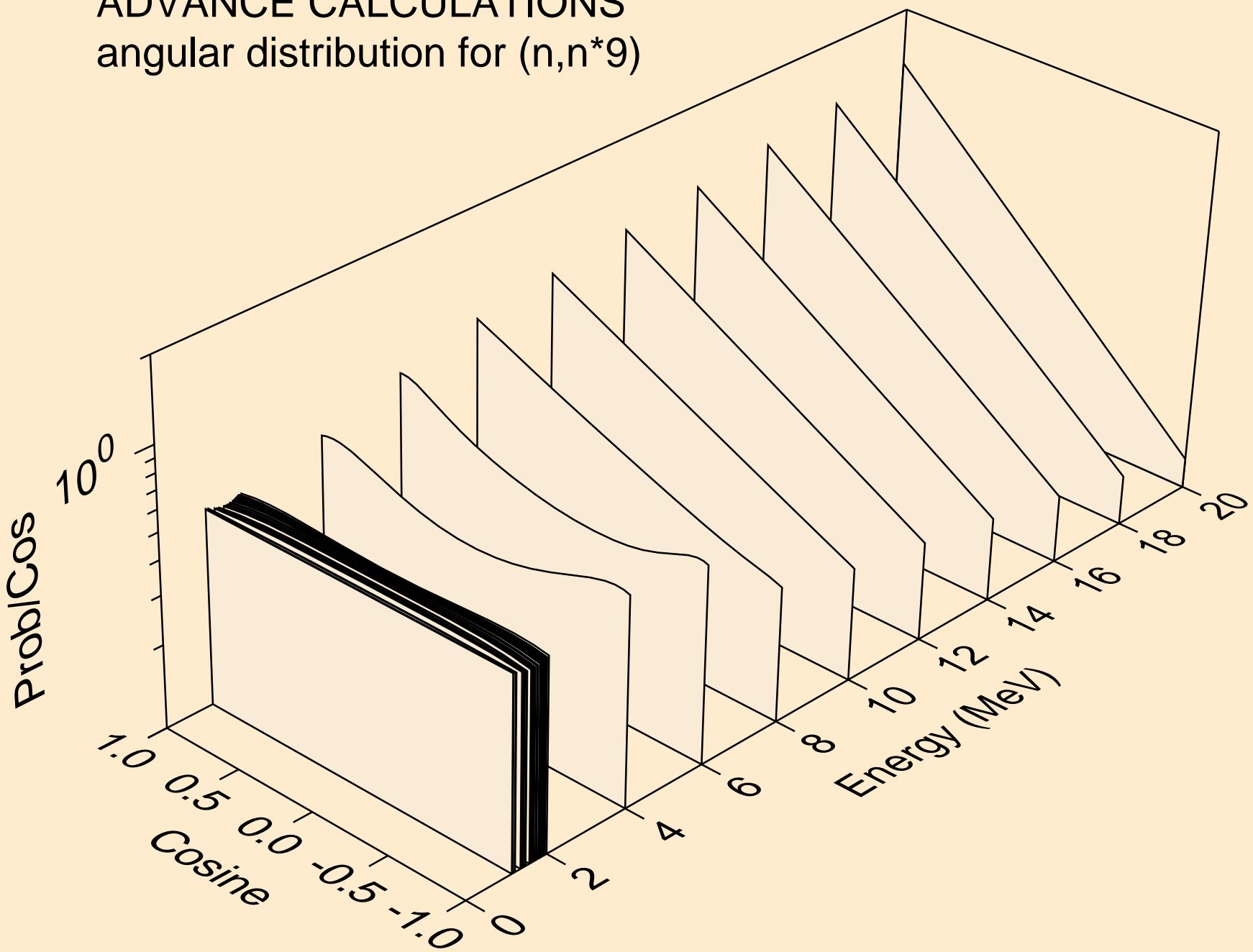
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*8)$



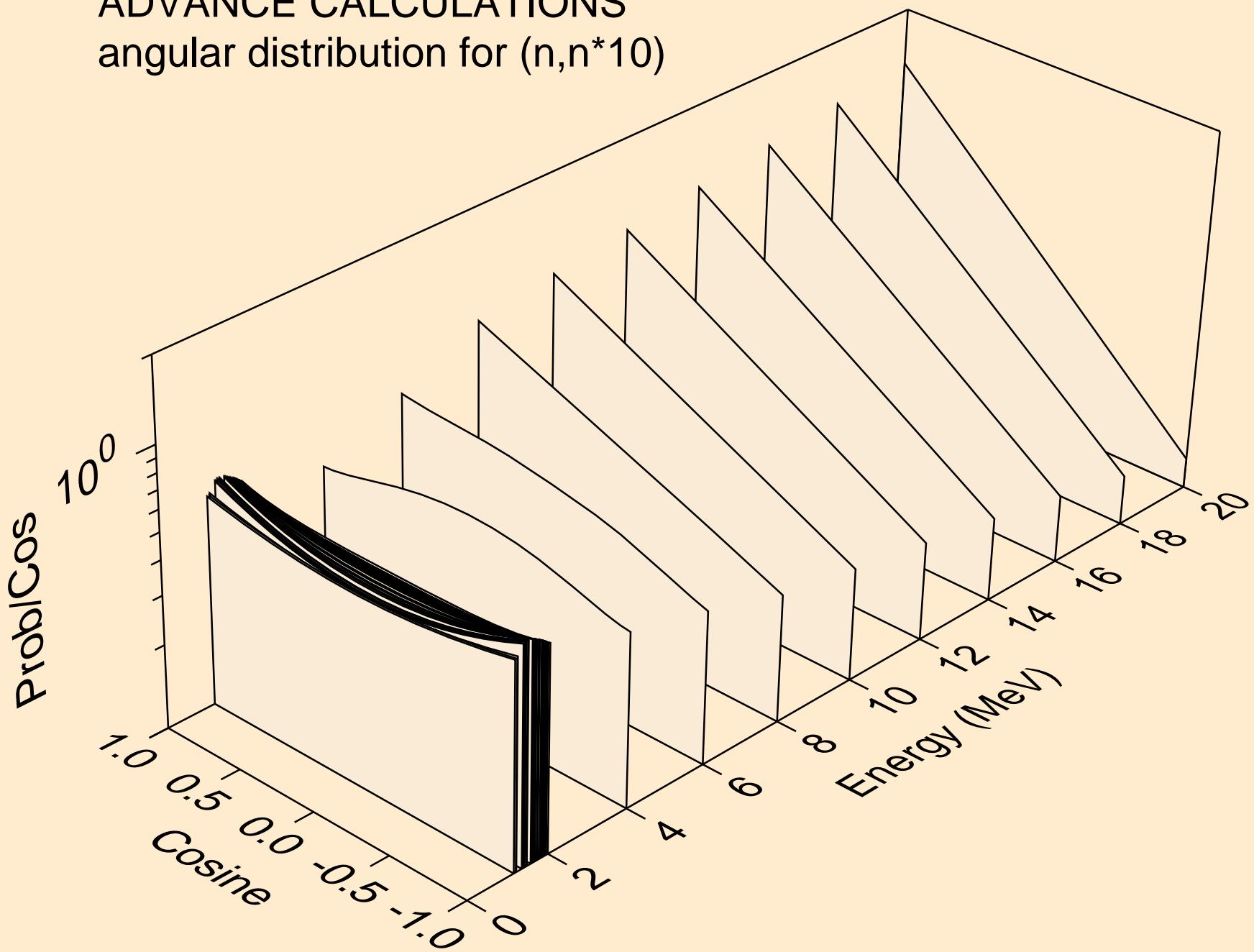
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*)9$



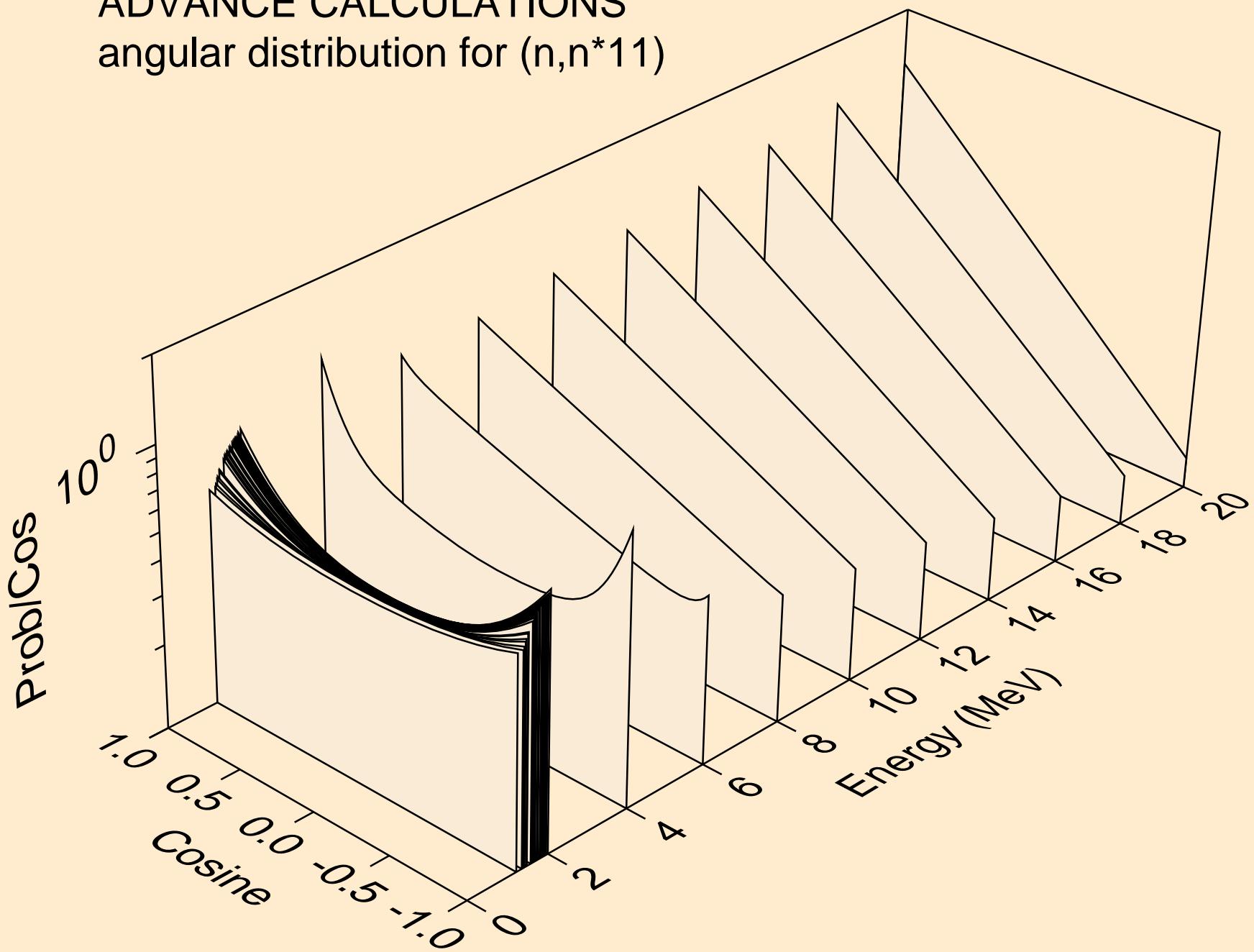
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*10)



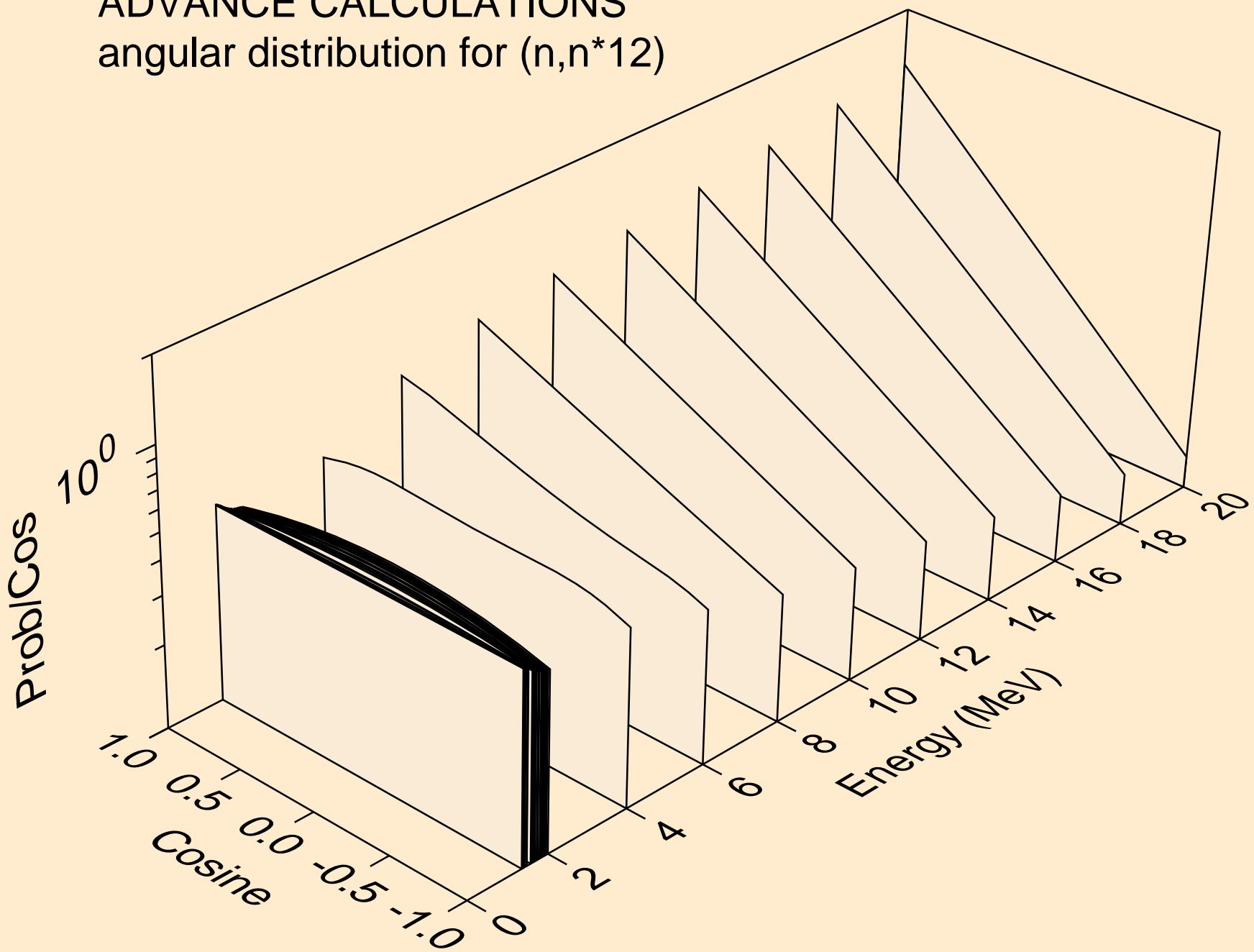
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*11)



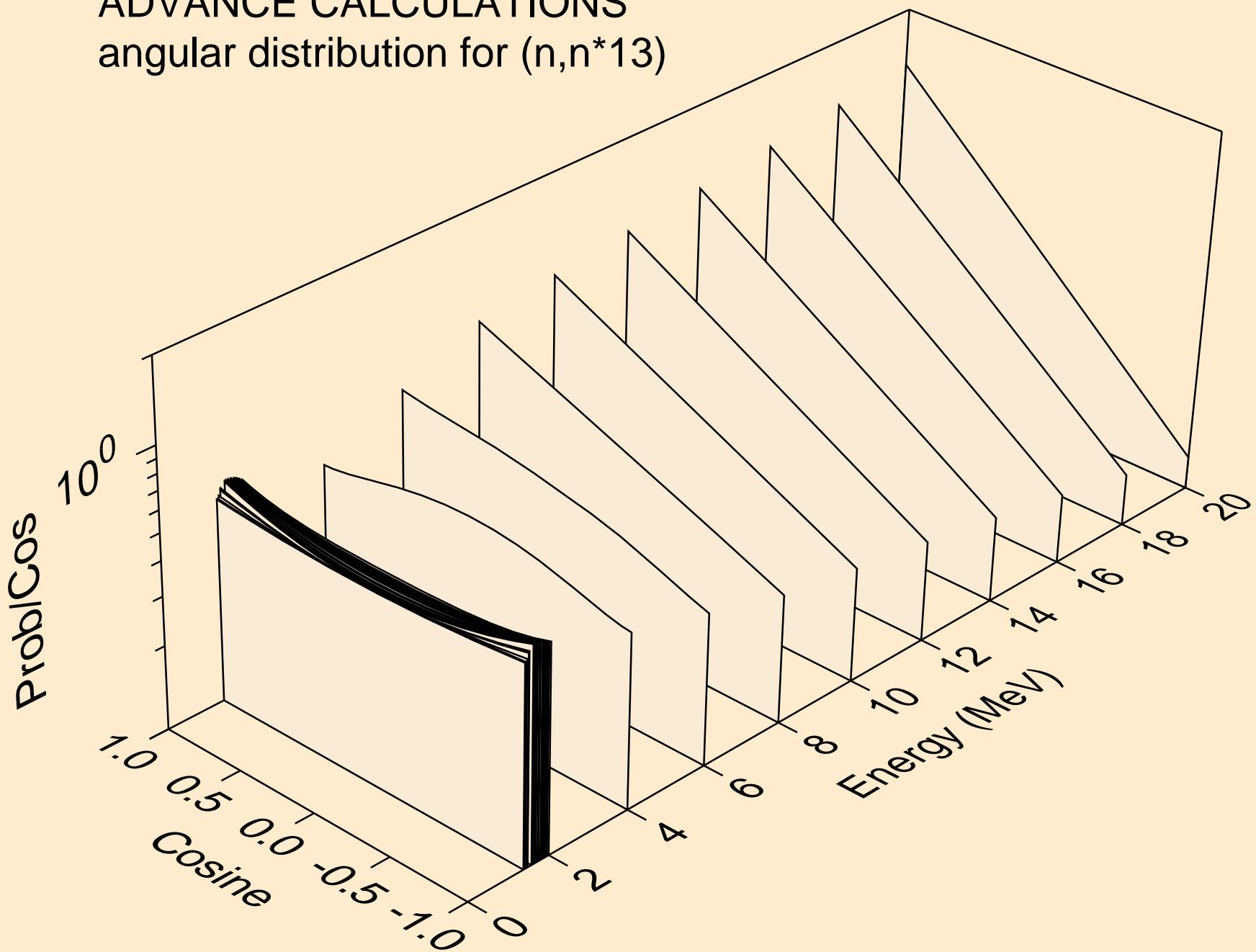
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*12)$



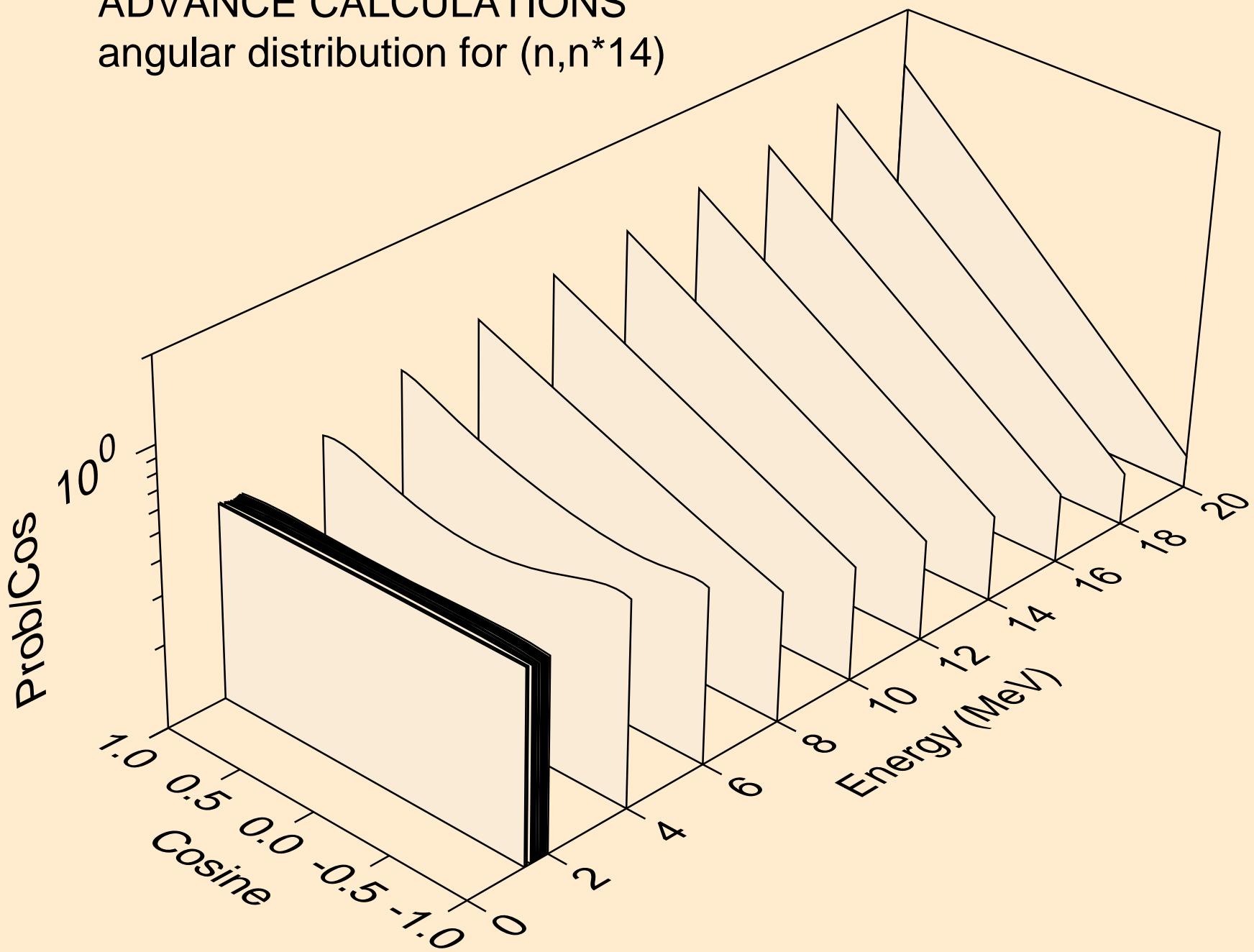
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*13)$



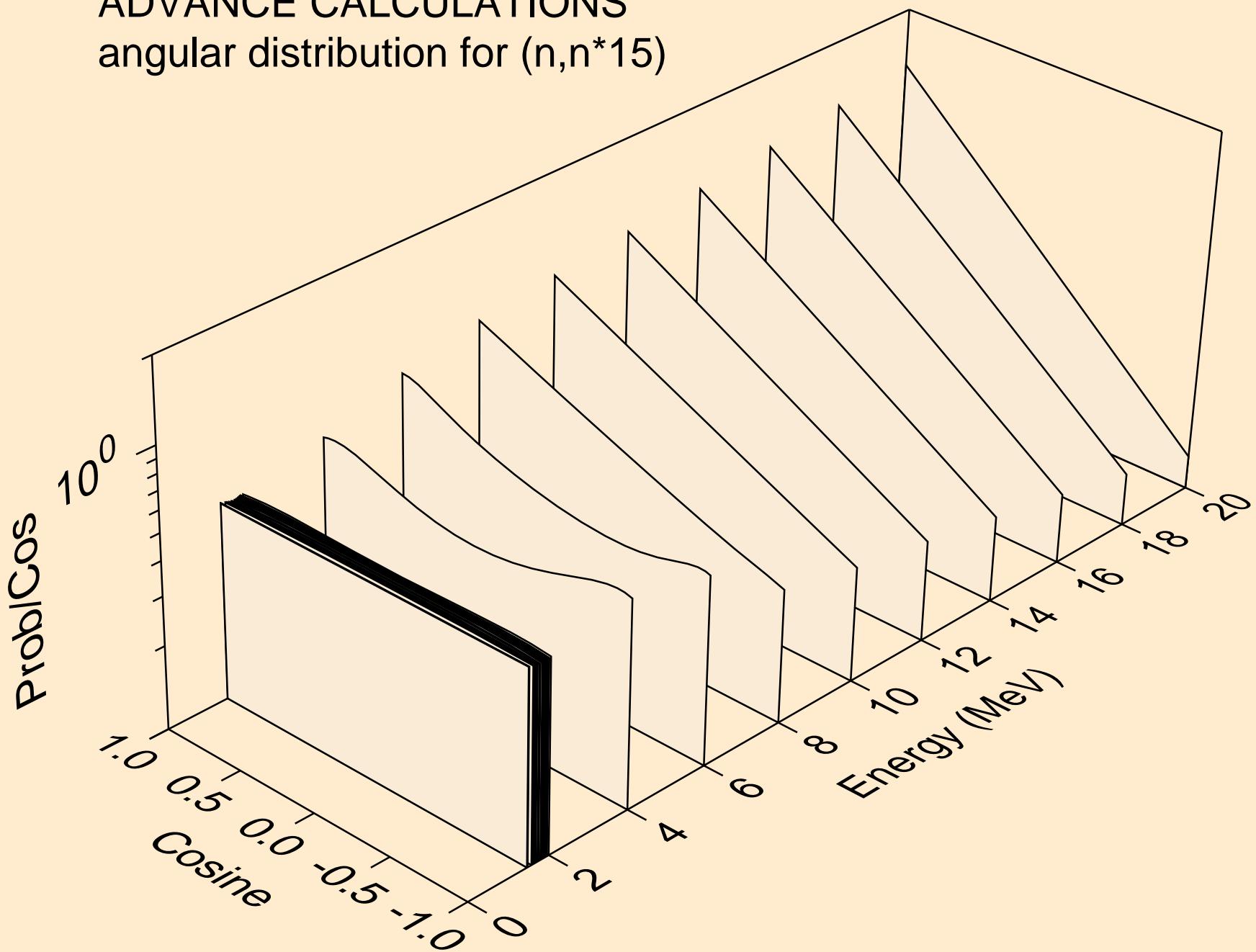
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*14)



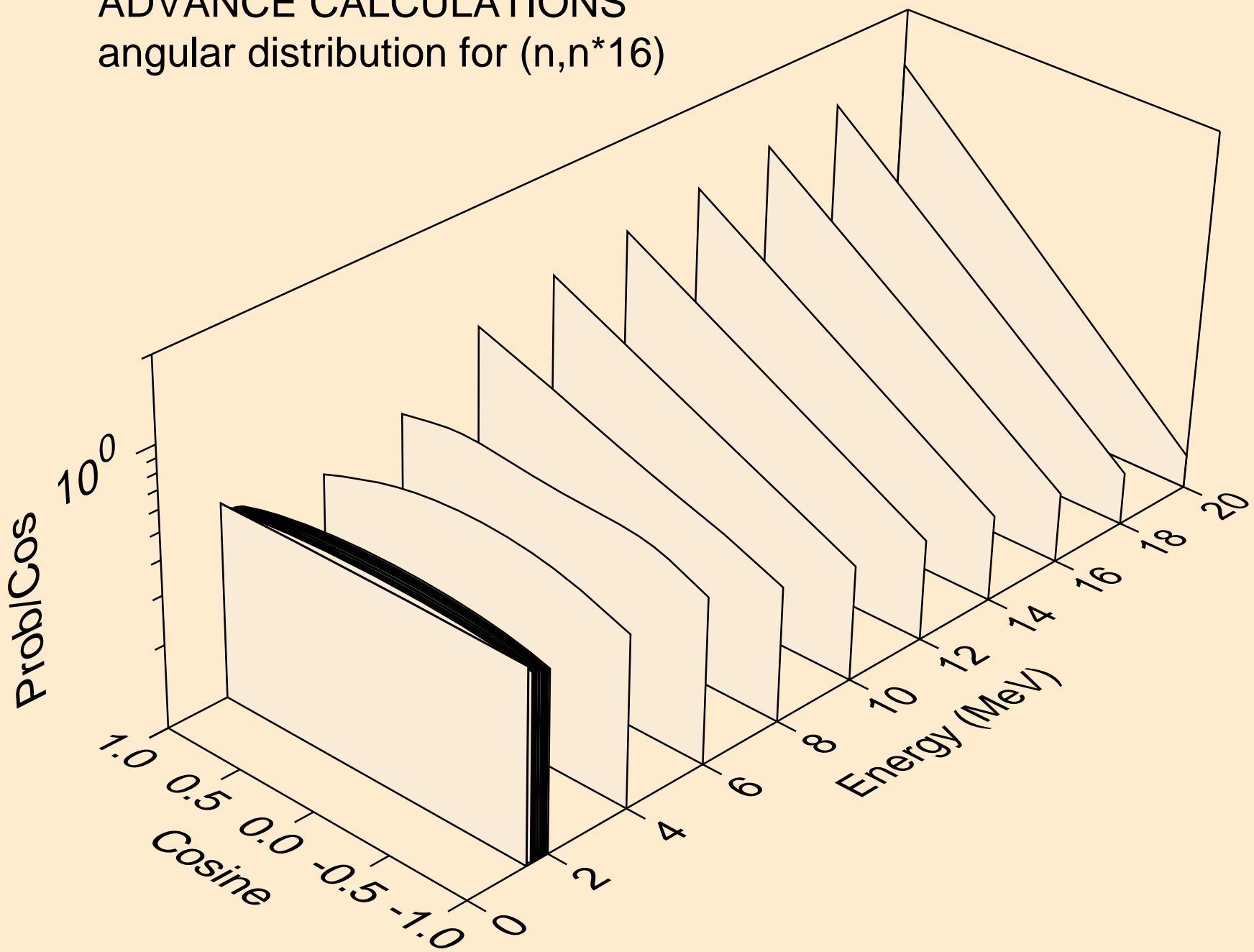
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*15)



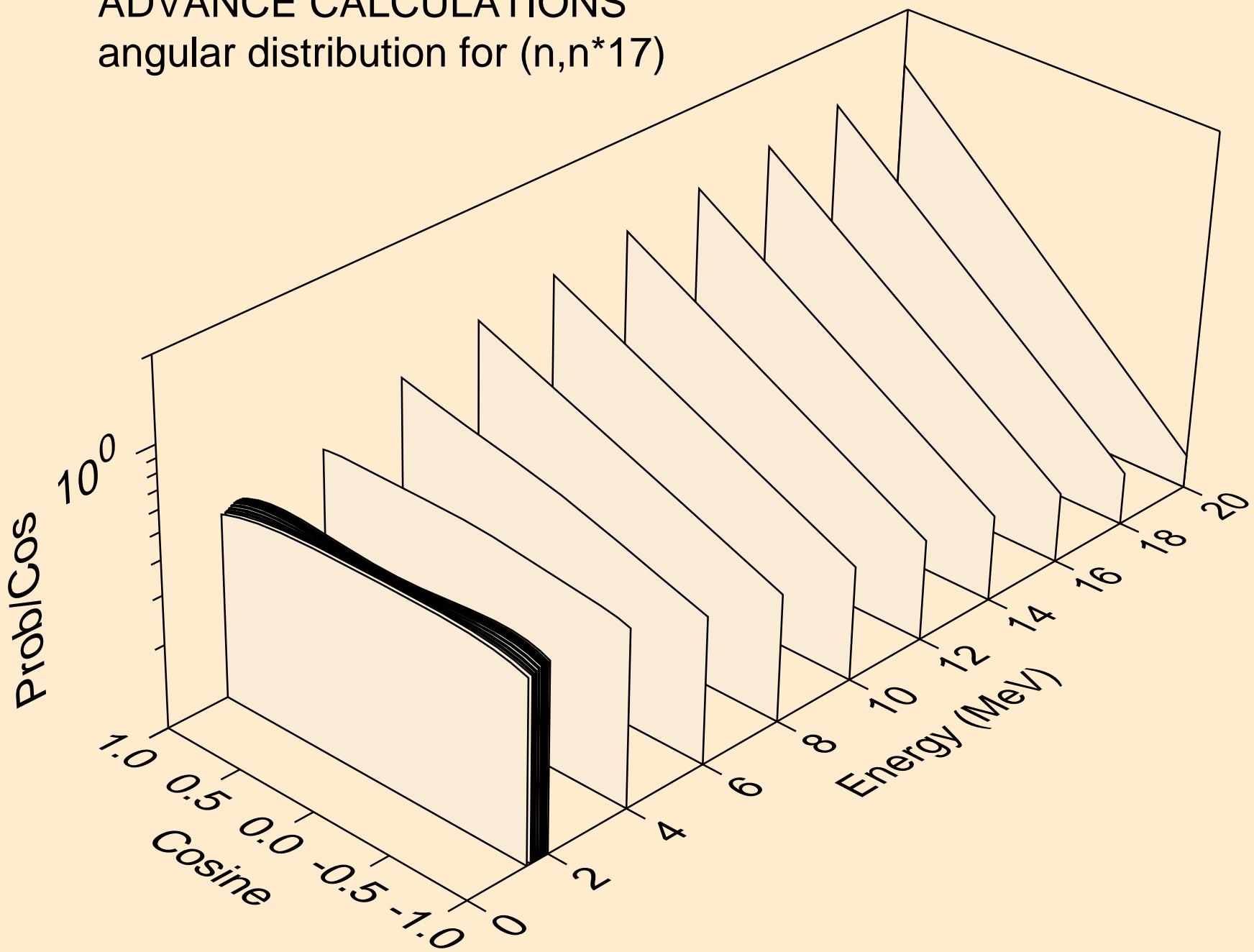
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*16)



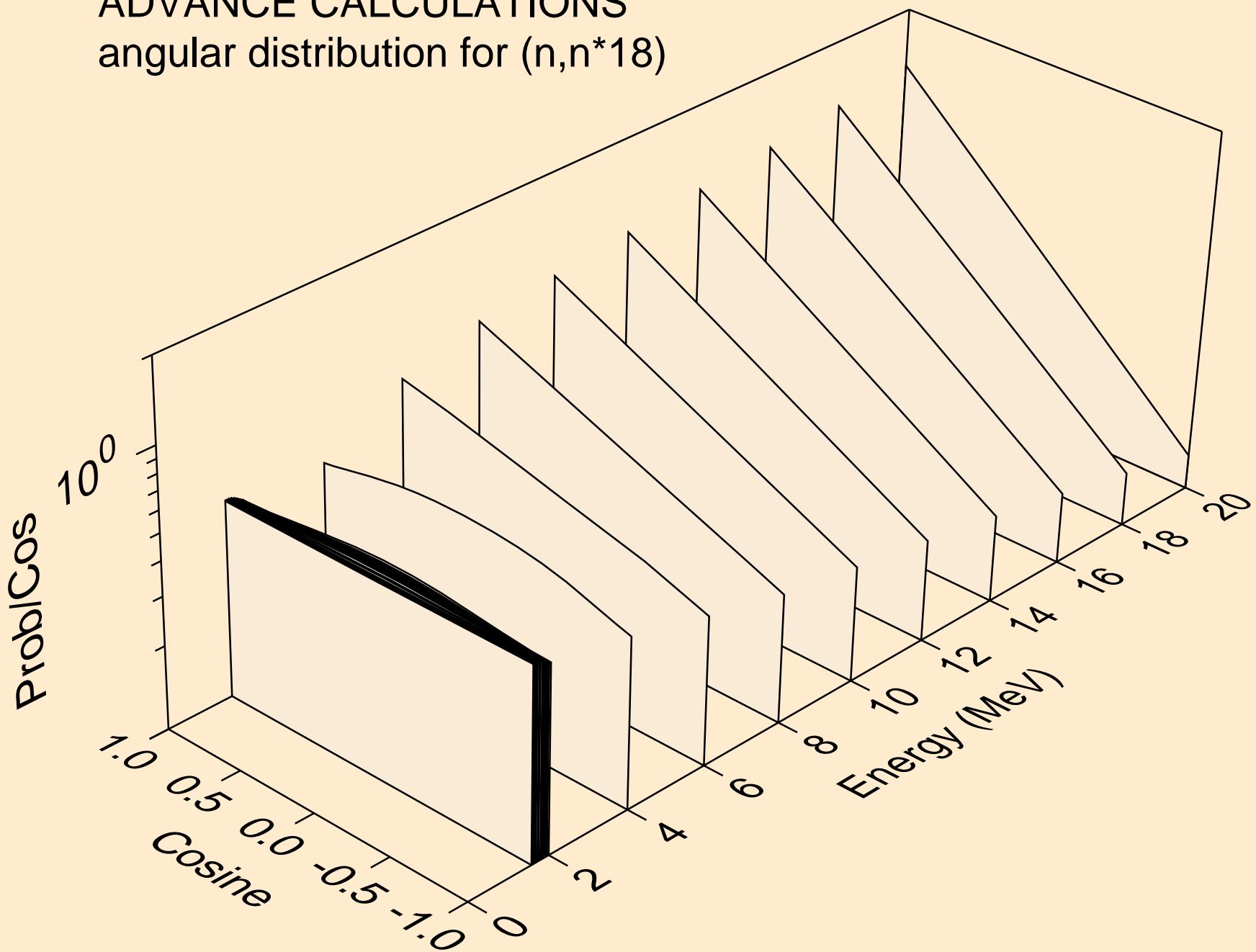
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*17)



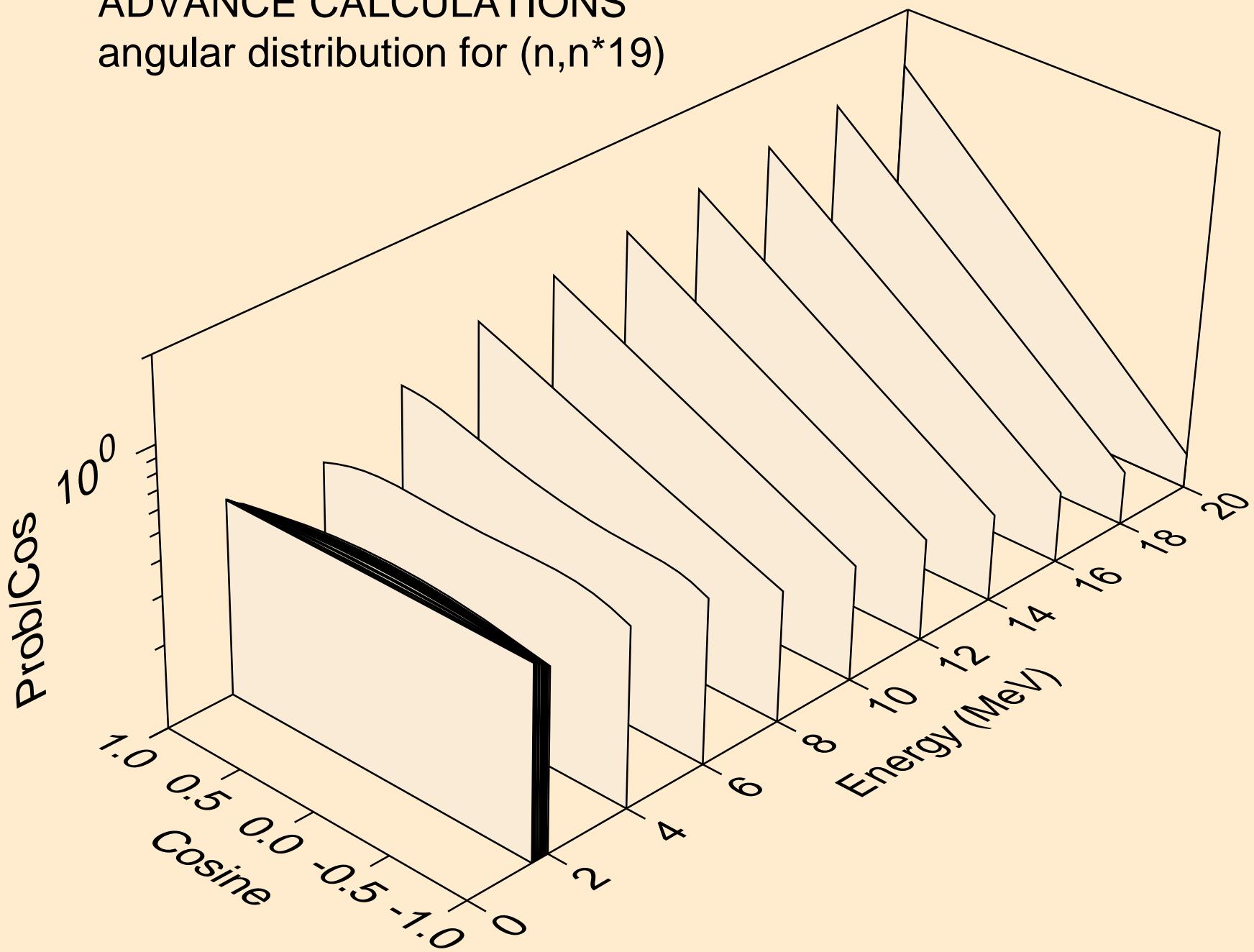
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*18)



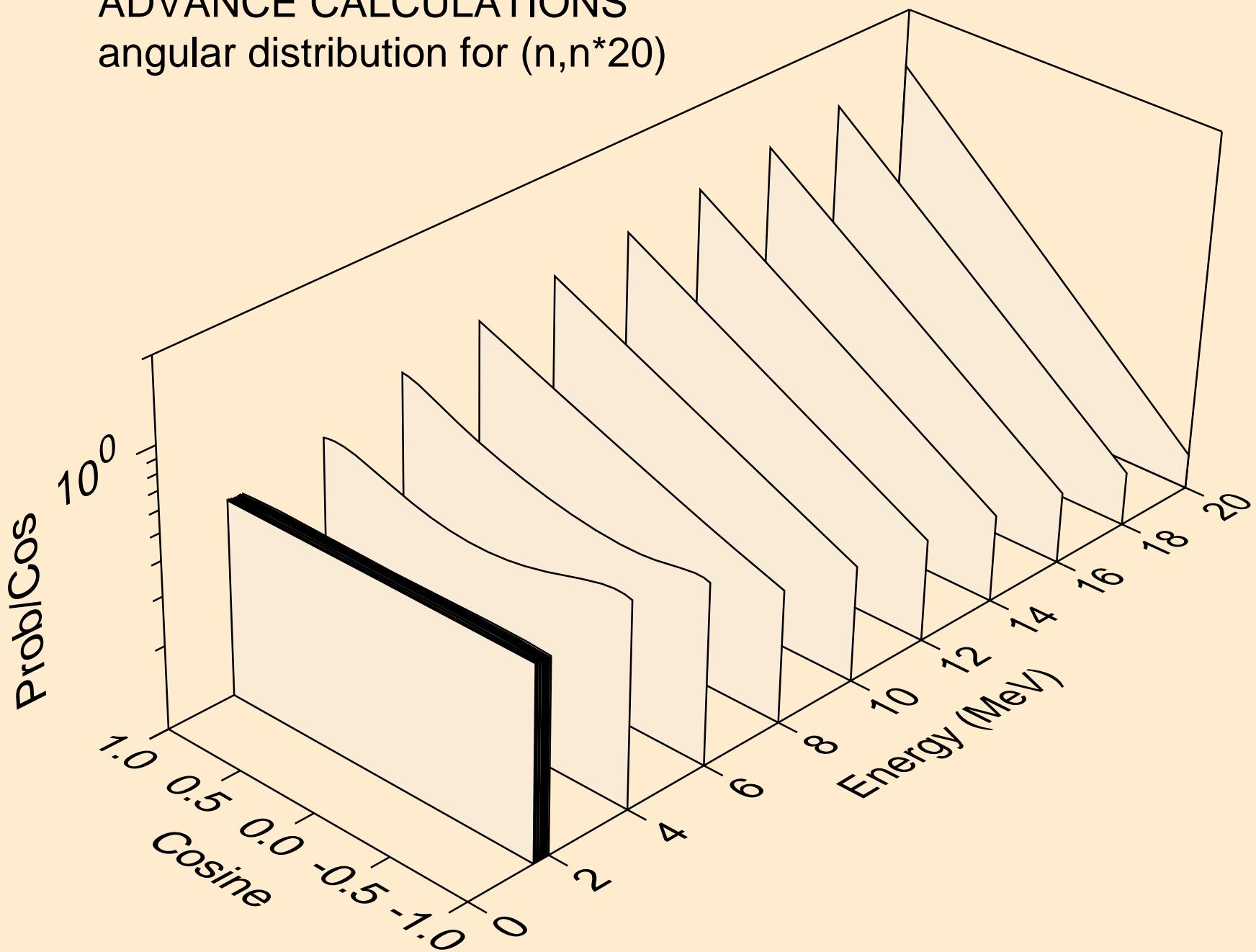
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*19)



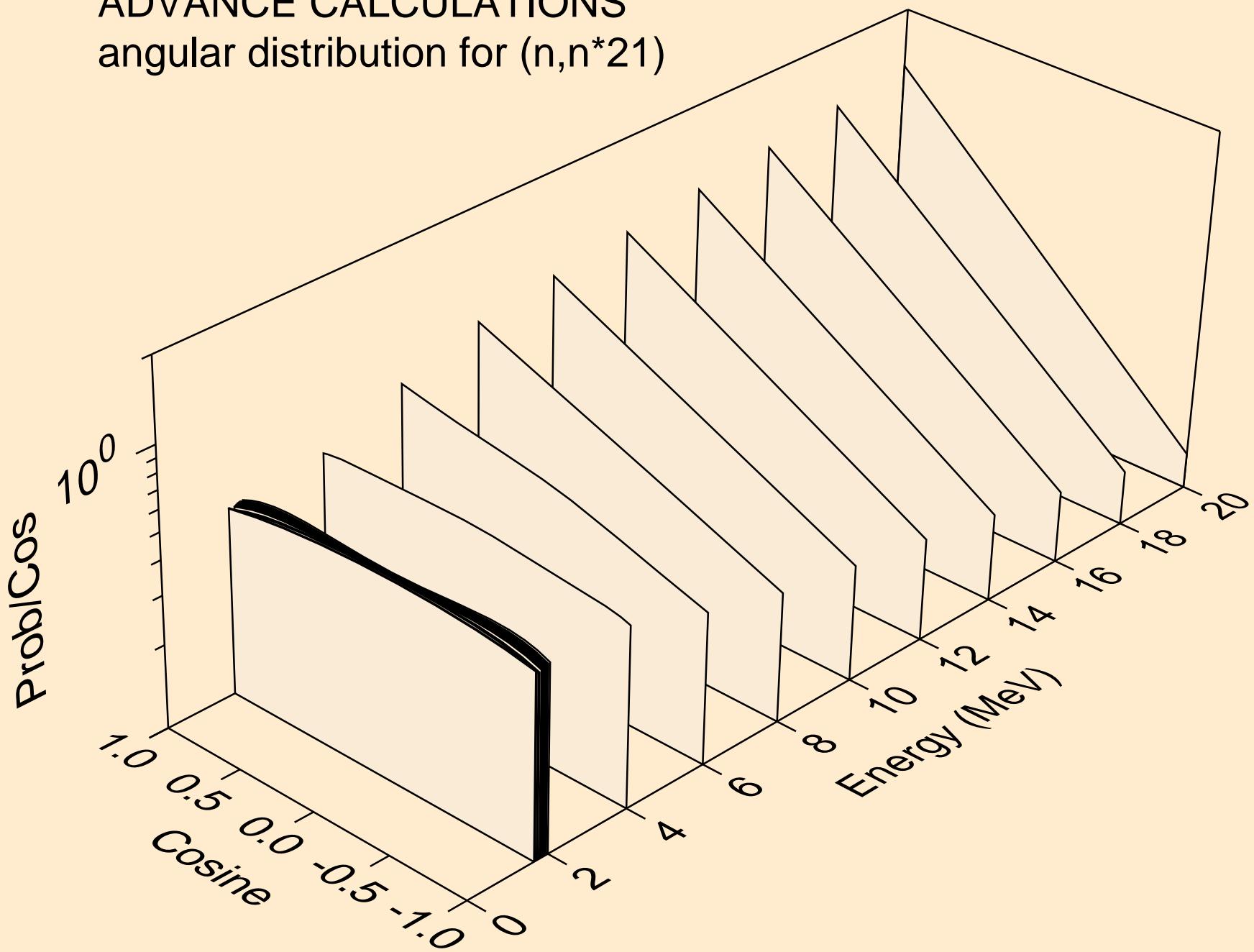
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*)20$



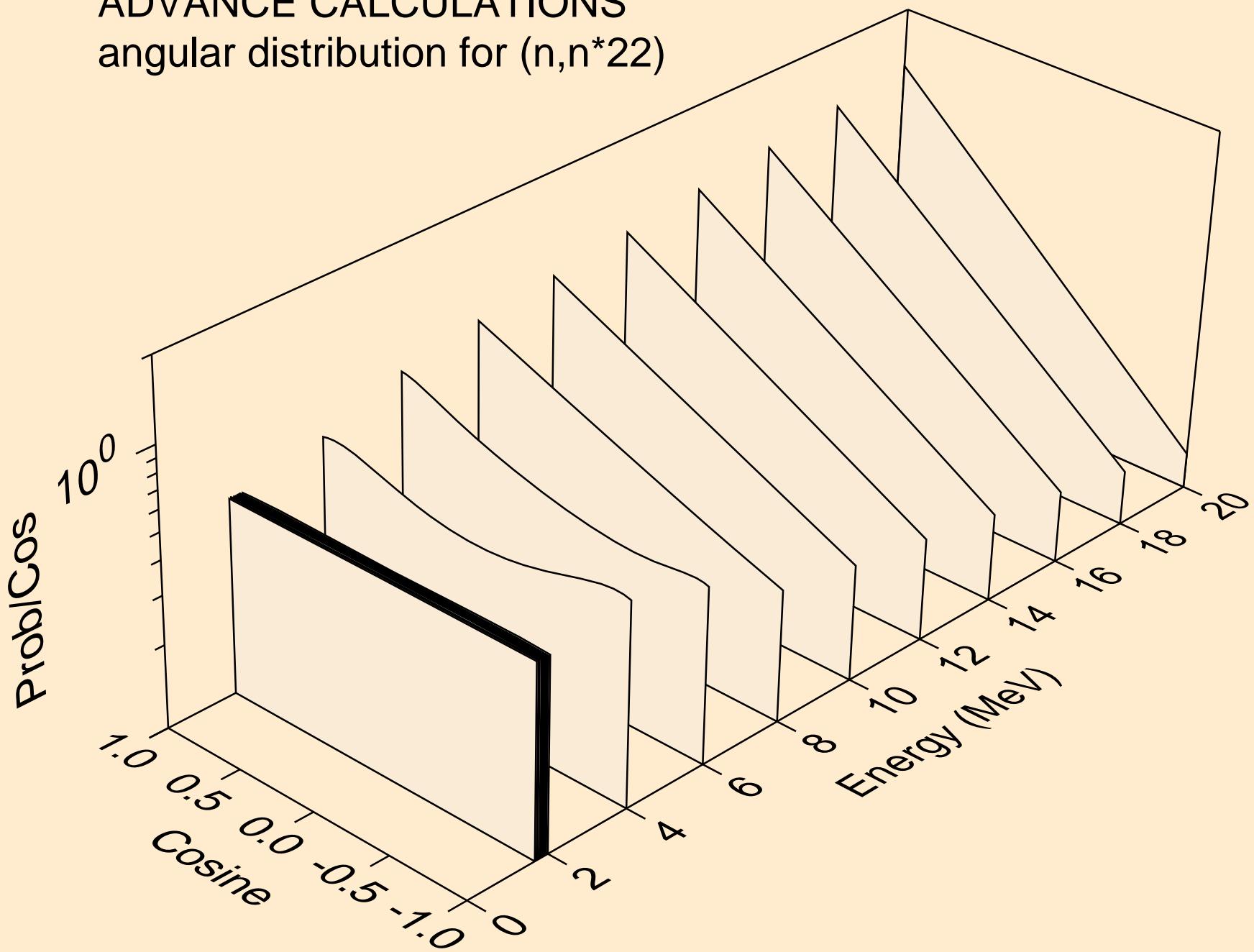
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*21)



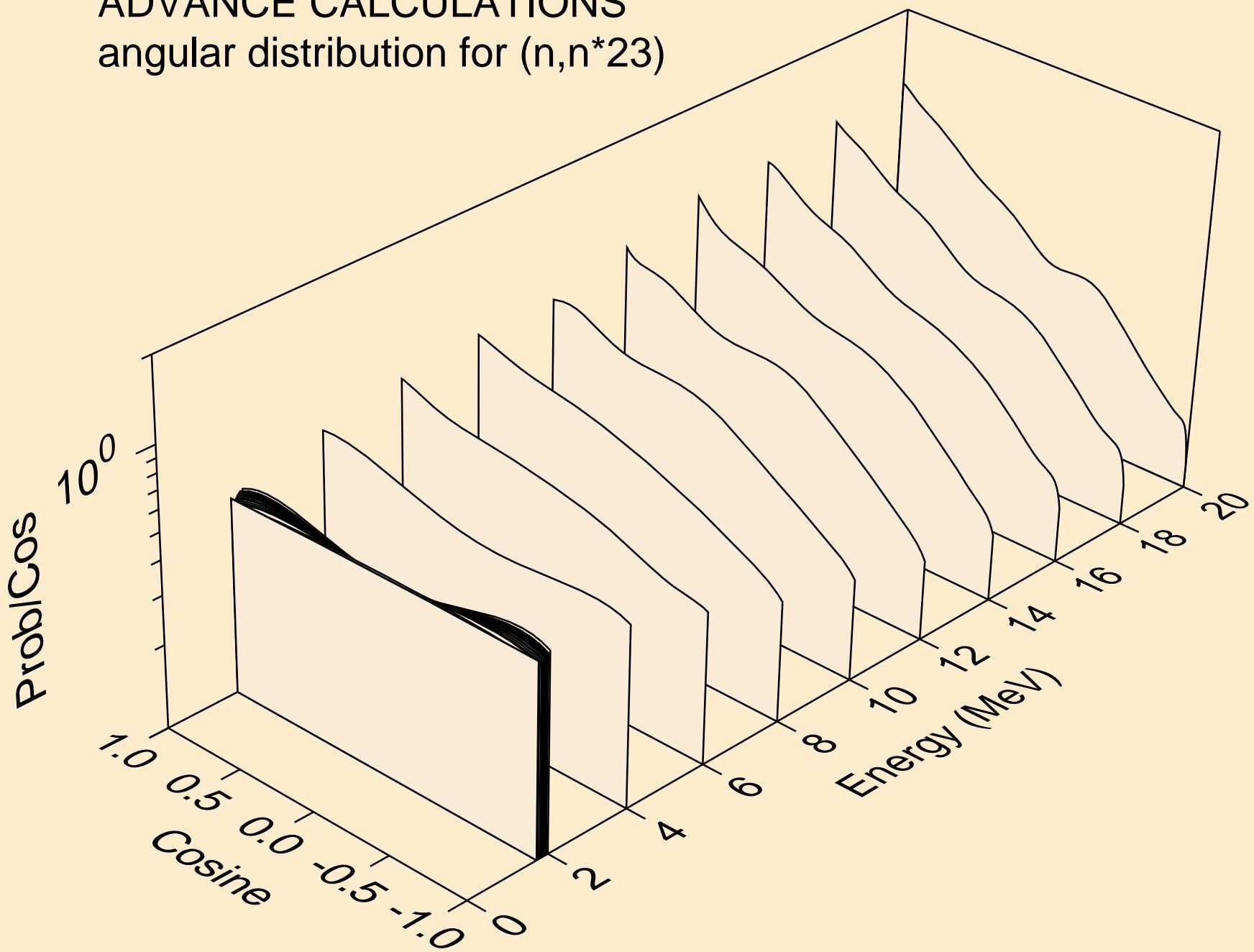
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*)^{22}$



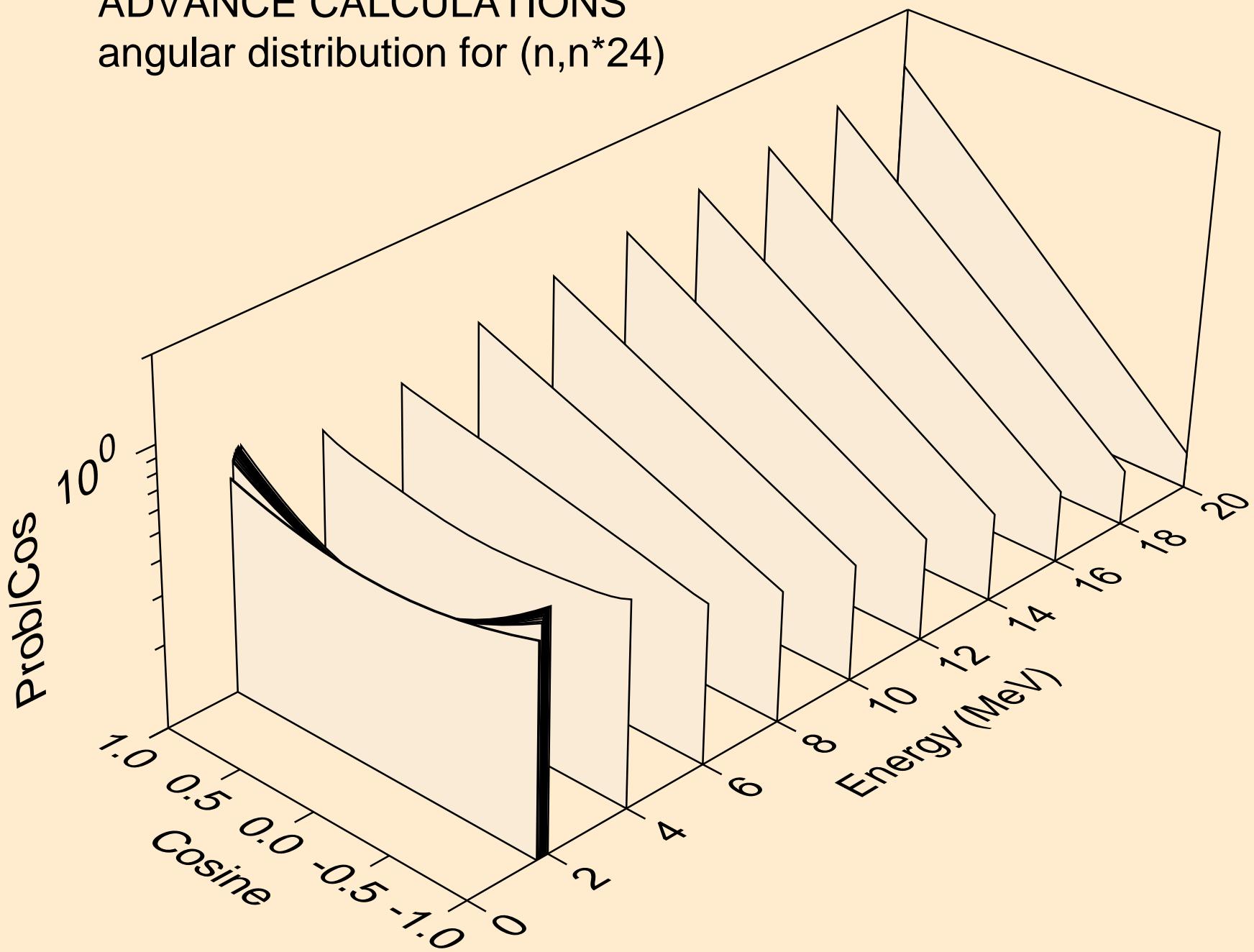
# ADVANCE CALCULATIONS

## angular distribution for ( $n, n^* 23$ )



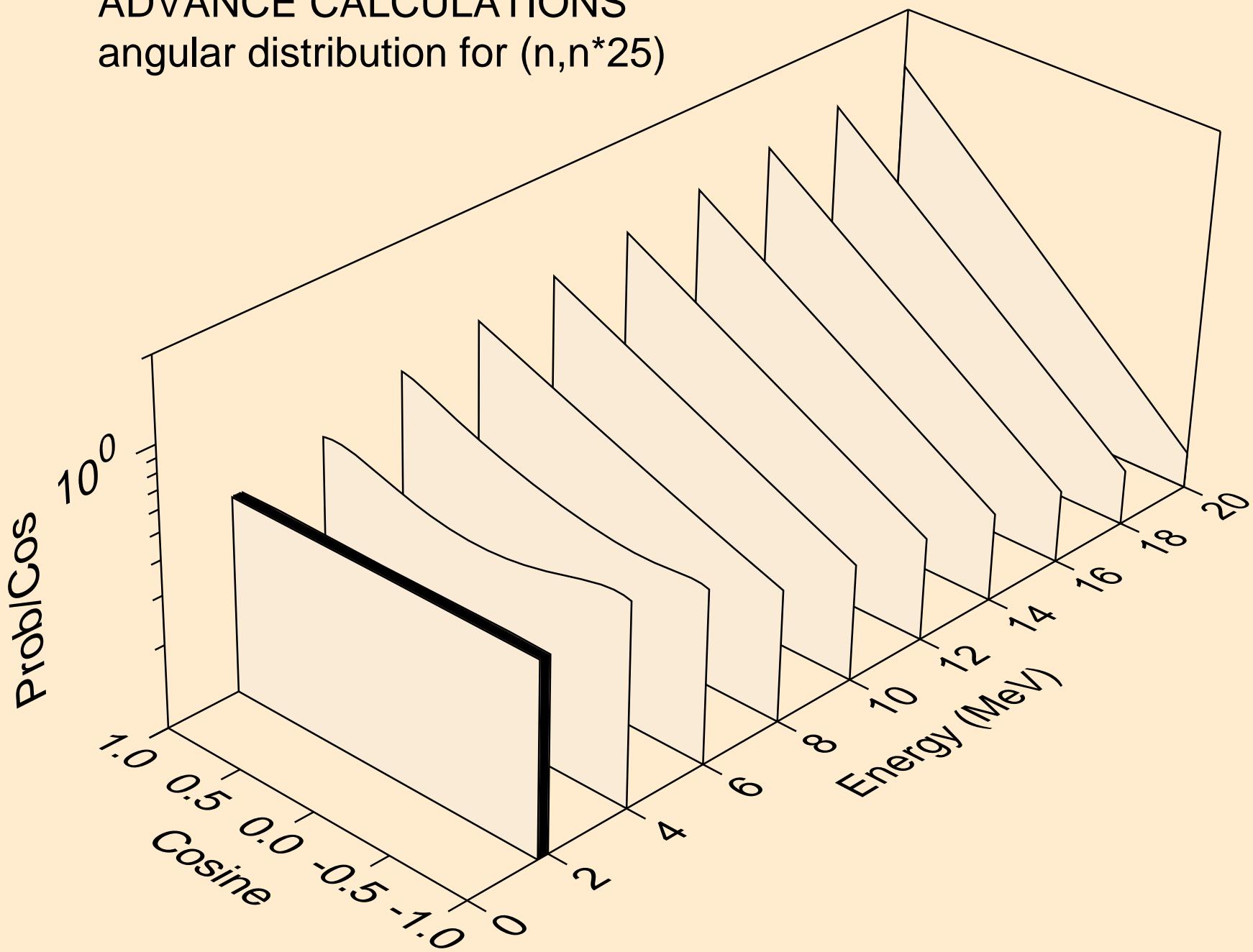
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*24)$



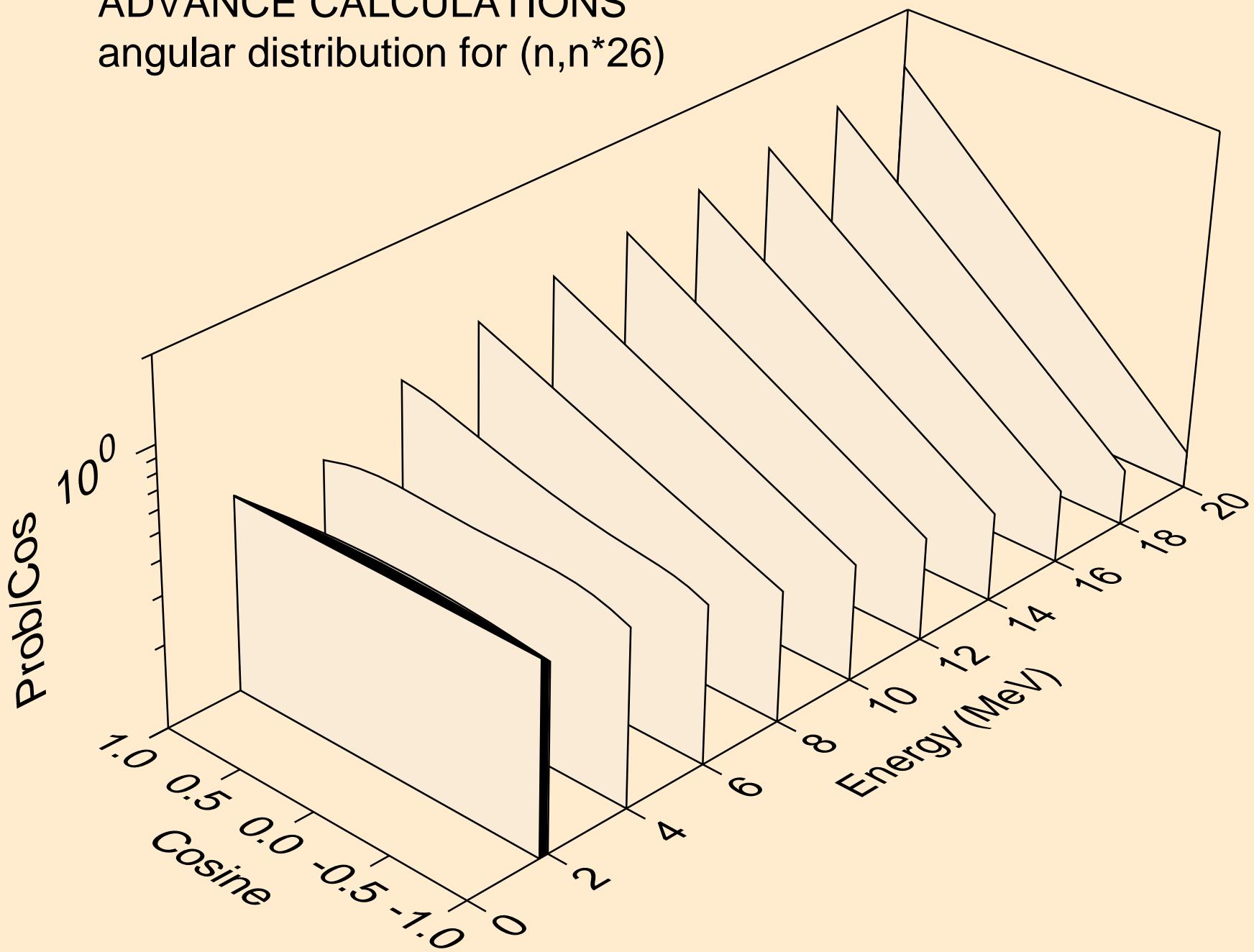
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*25)



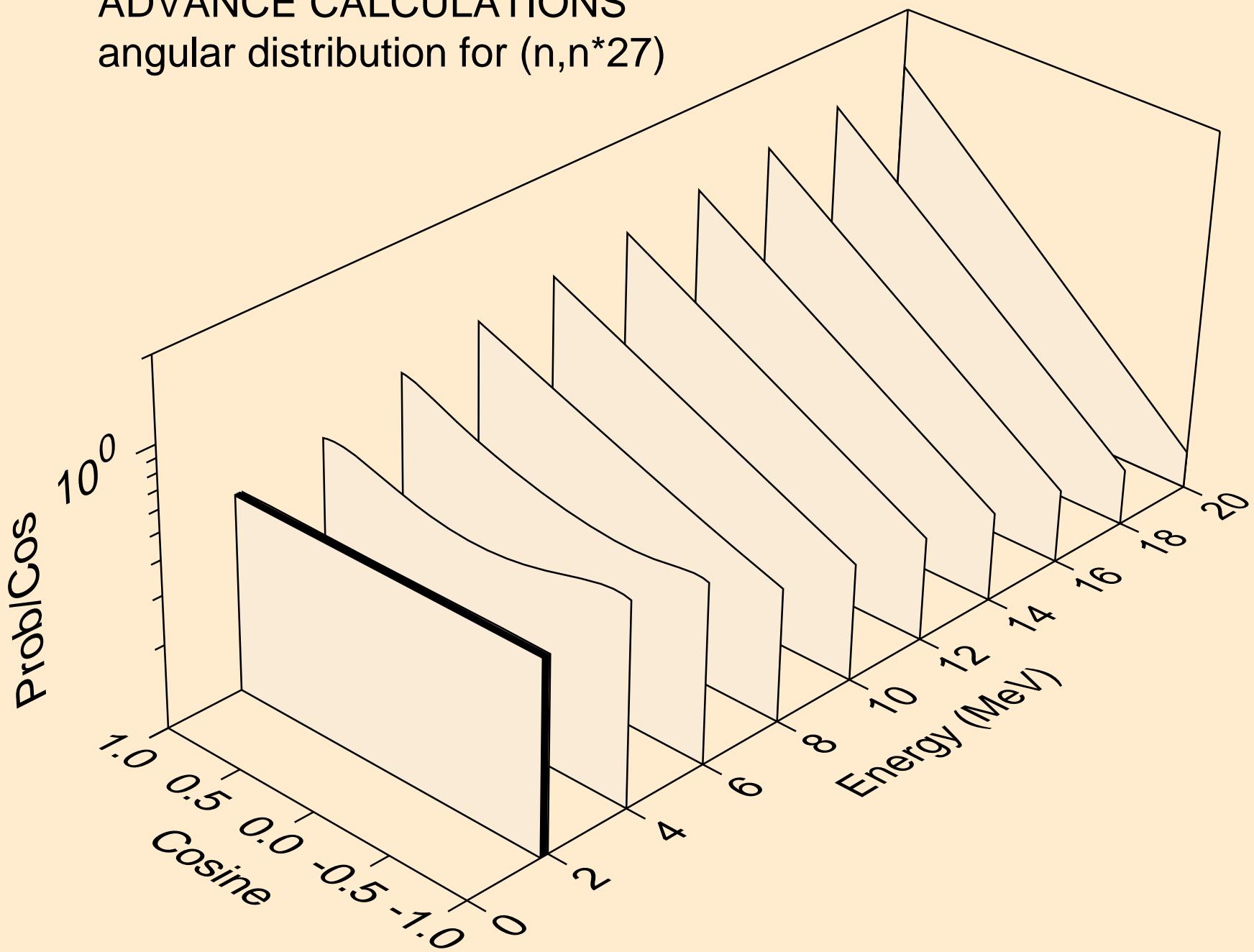
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*)_{26}$



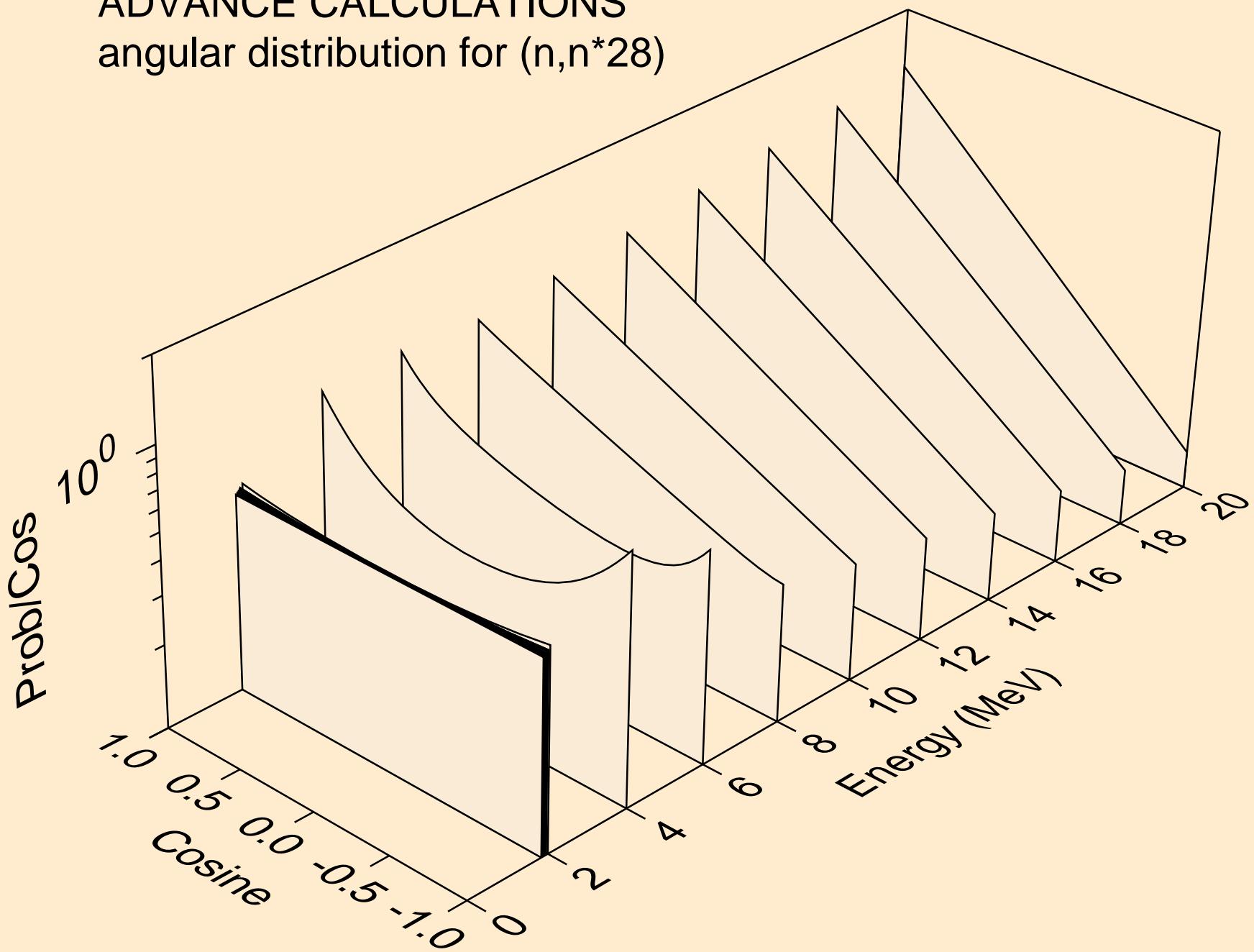
# ADVANCE CALCULATIONS

## angular distribution for ( $n, n^* 27$ )



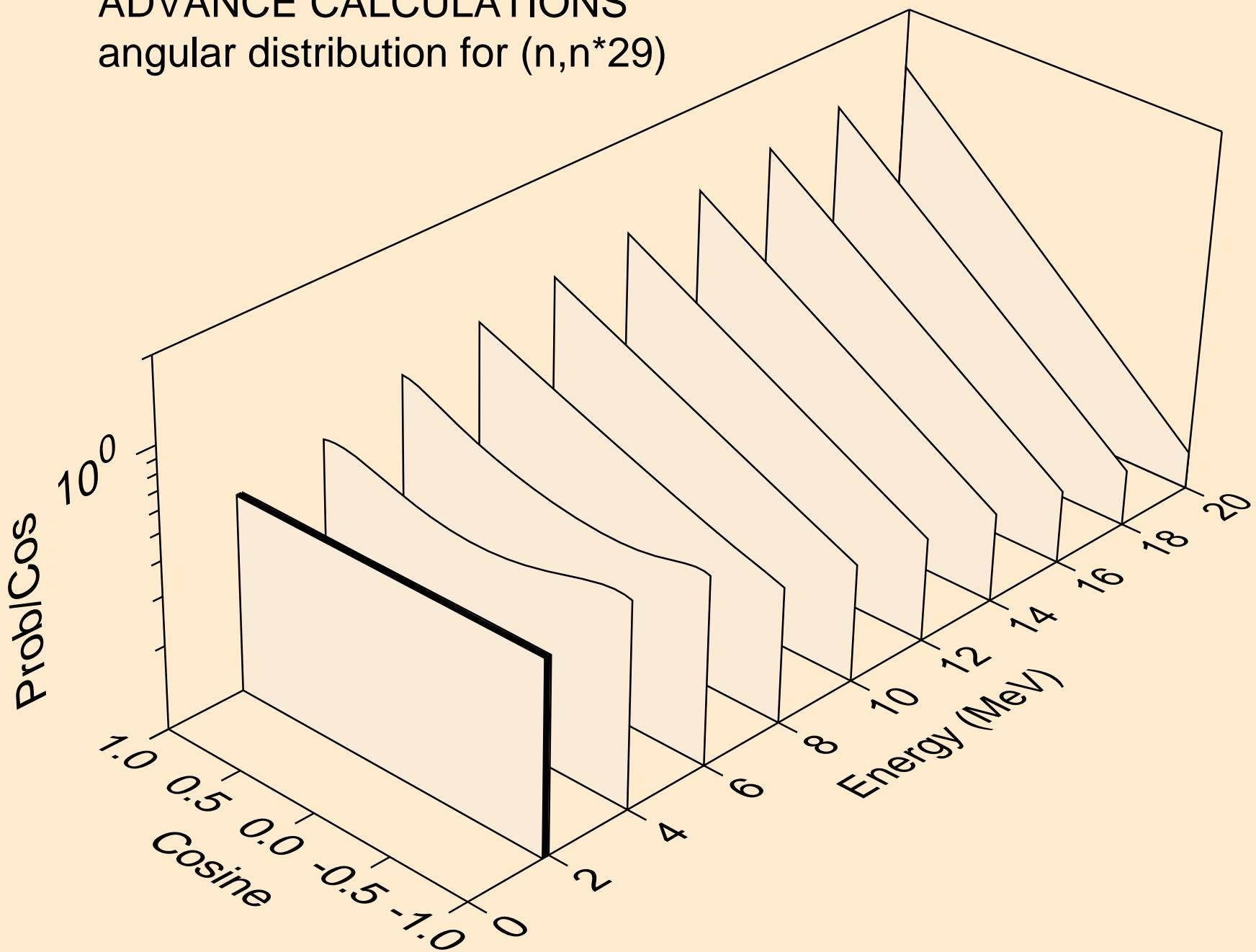
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*28)



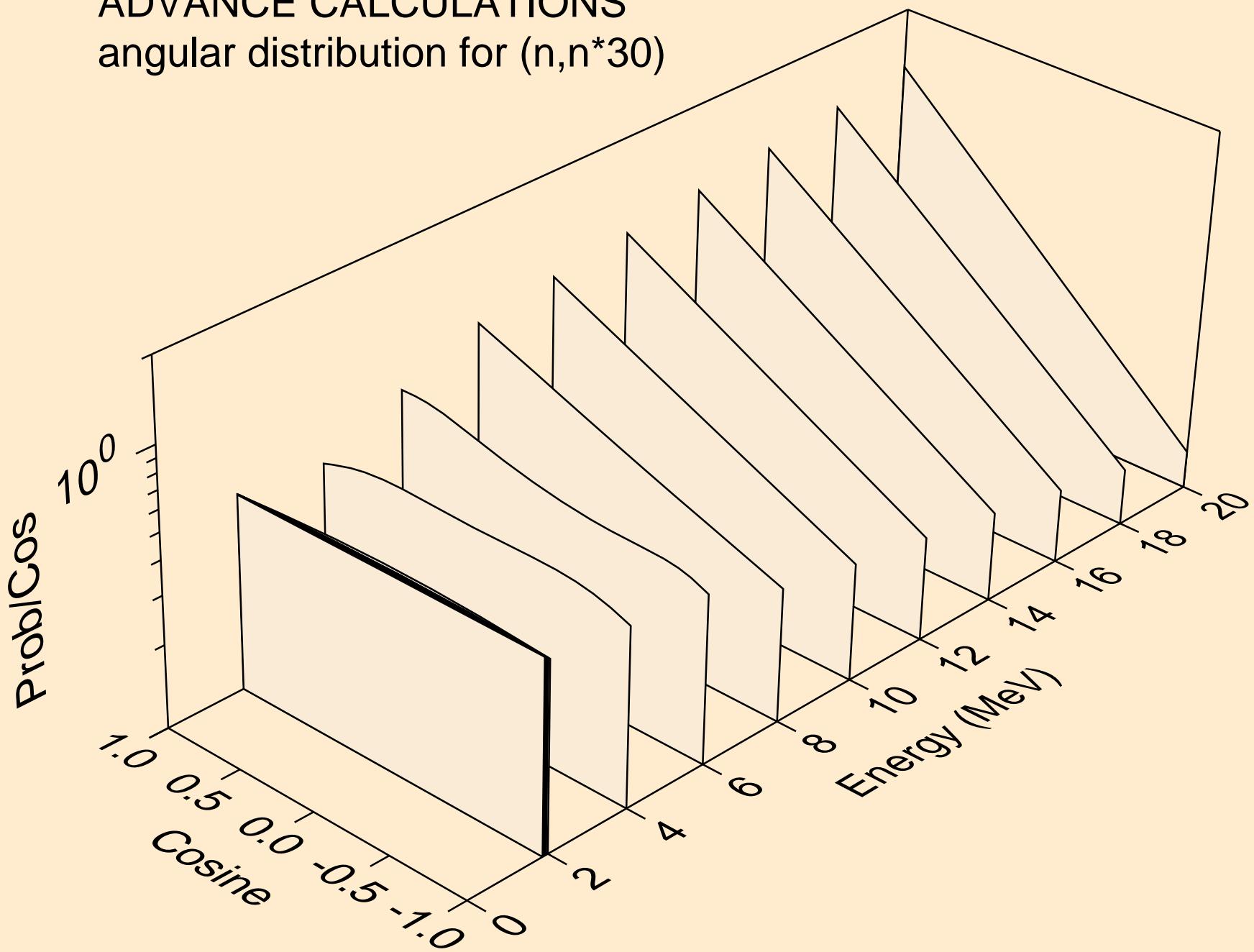
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*29)



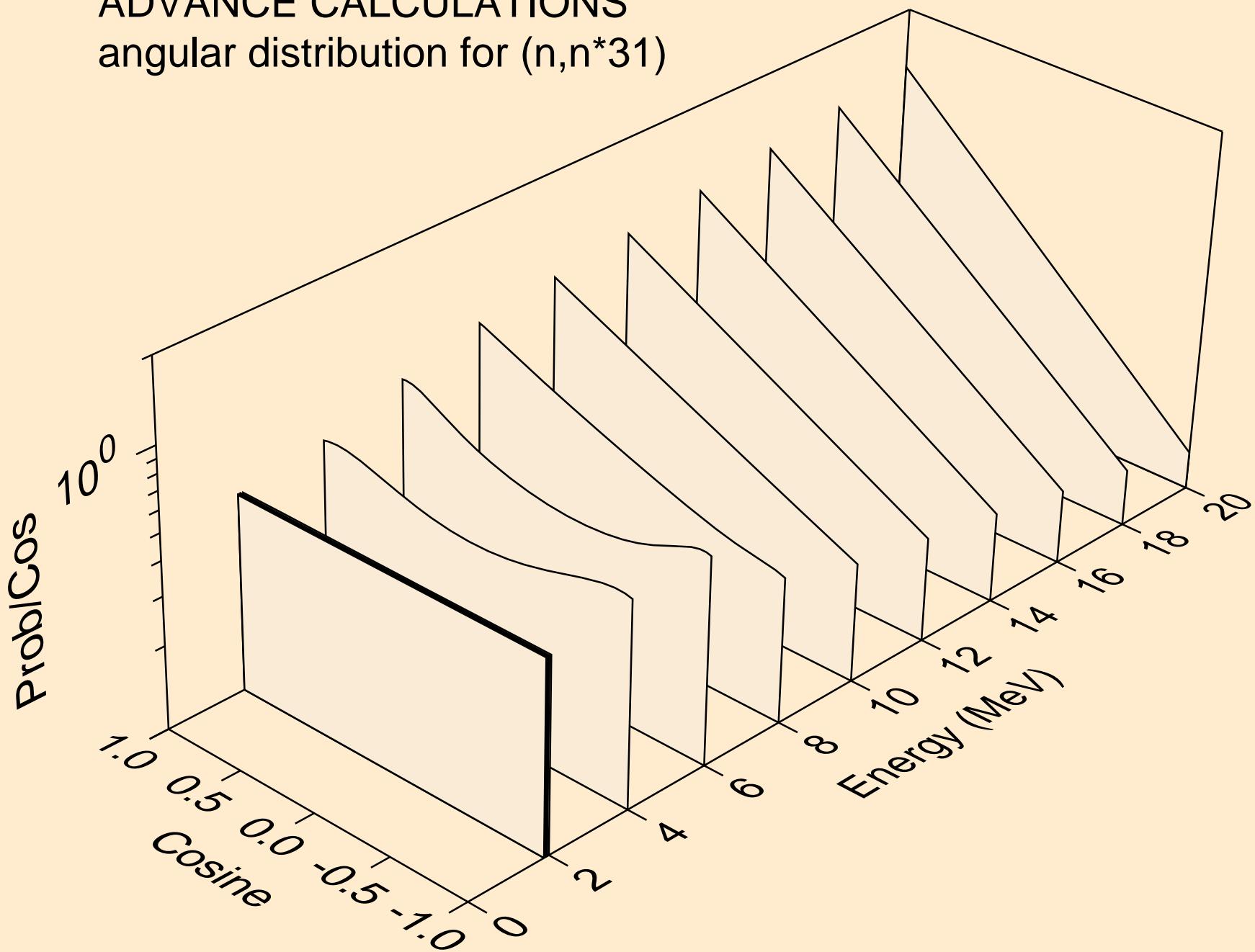
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*30)



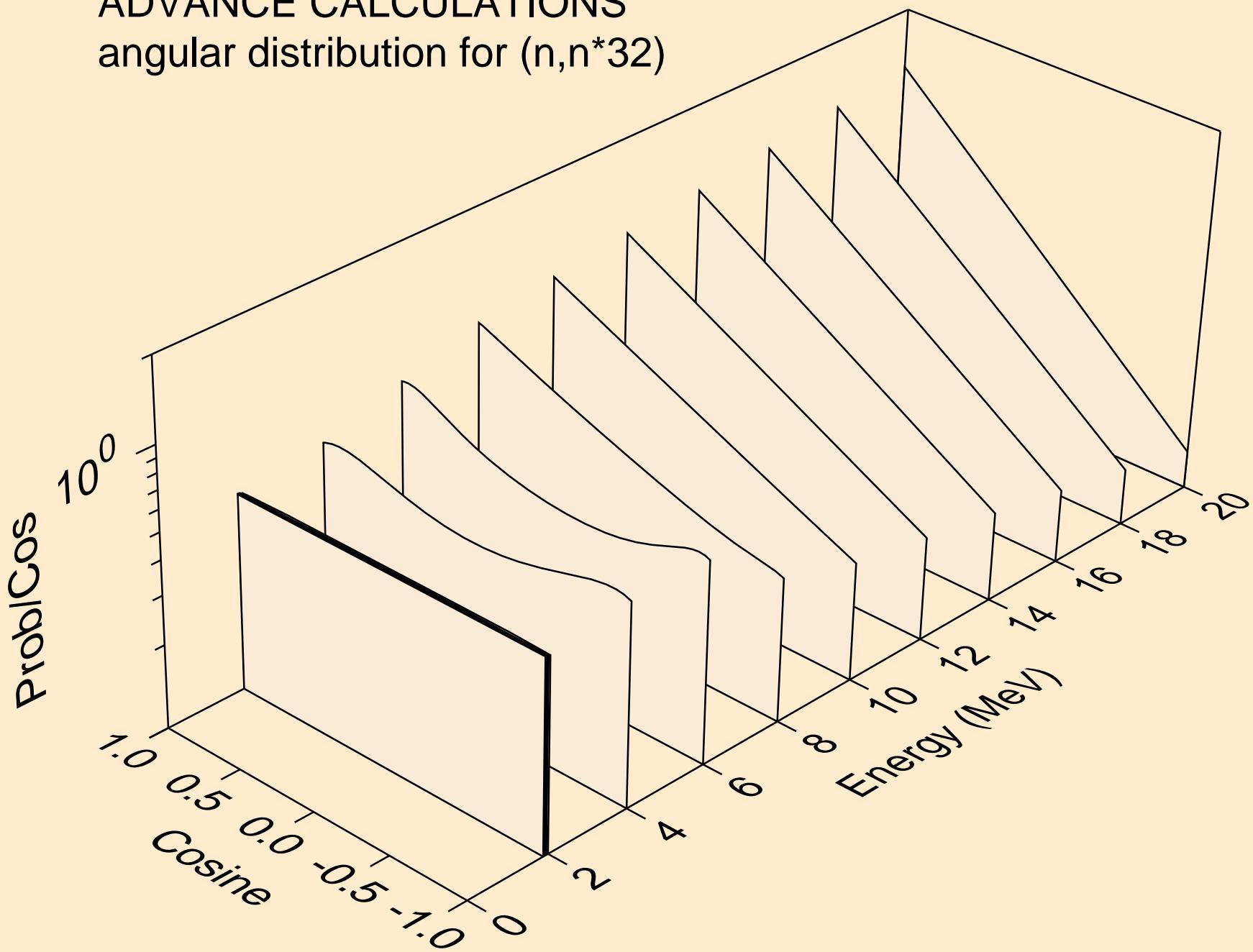
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*31)



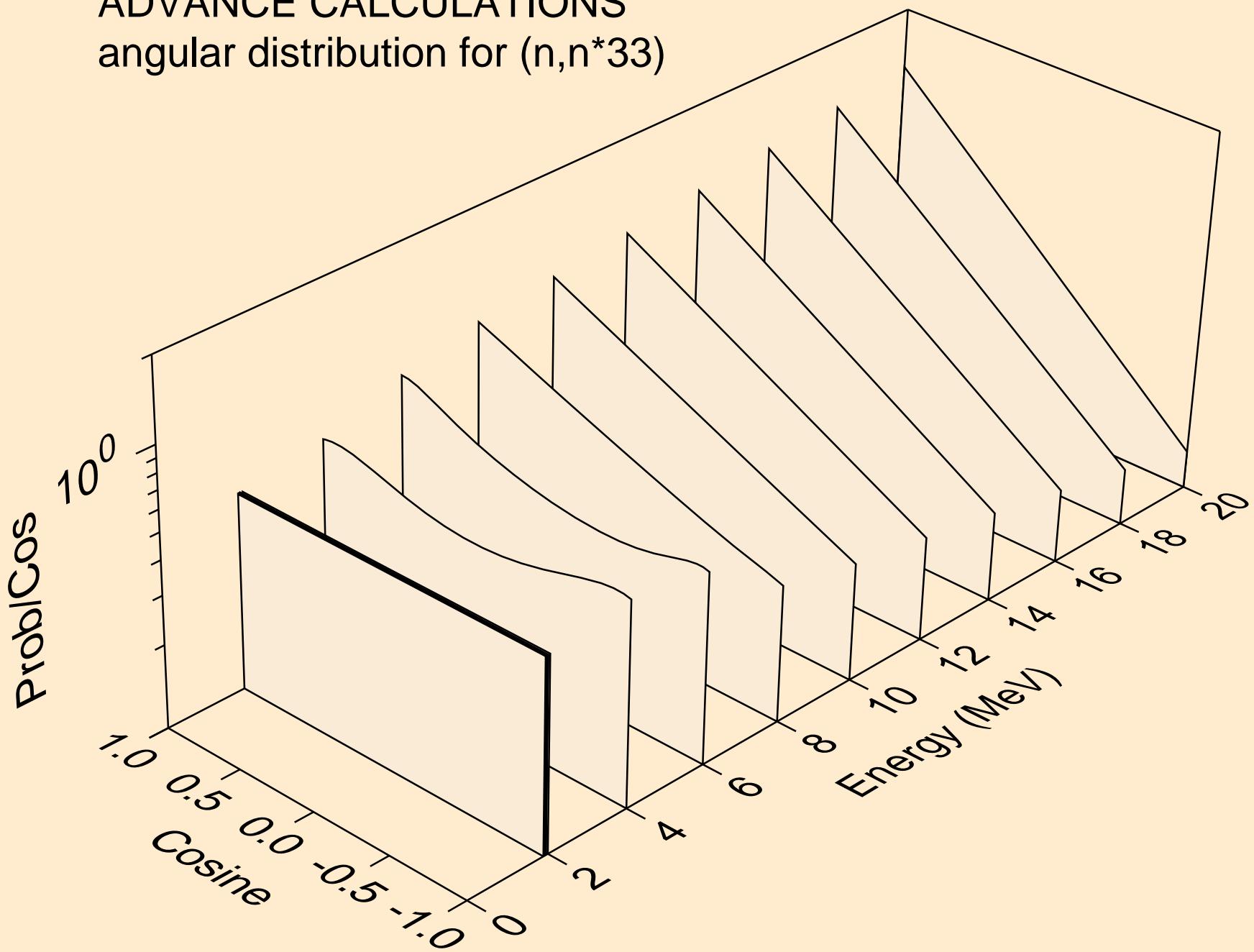
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*32)



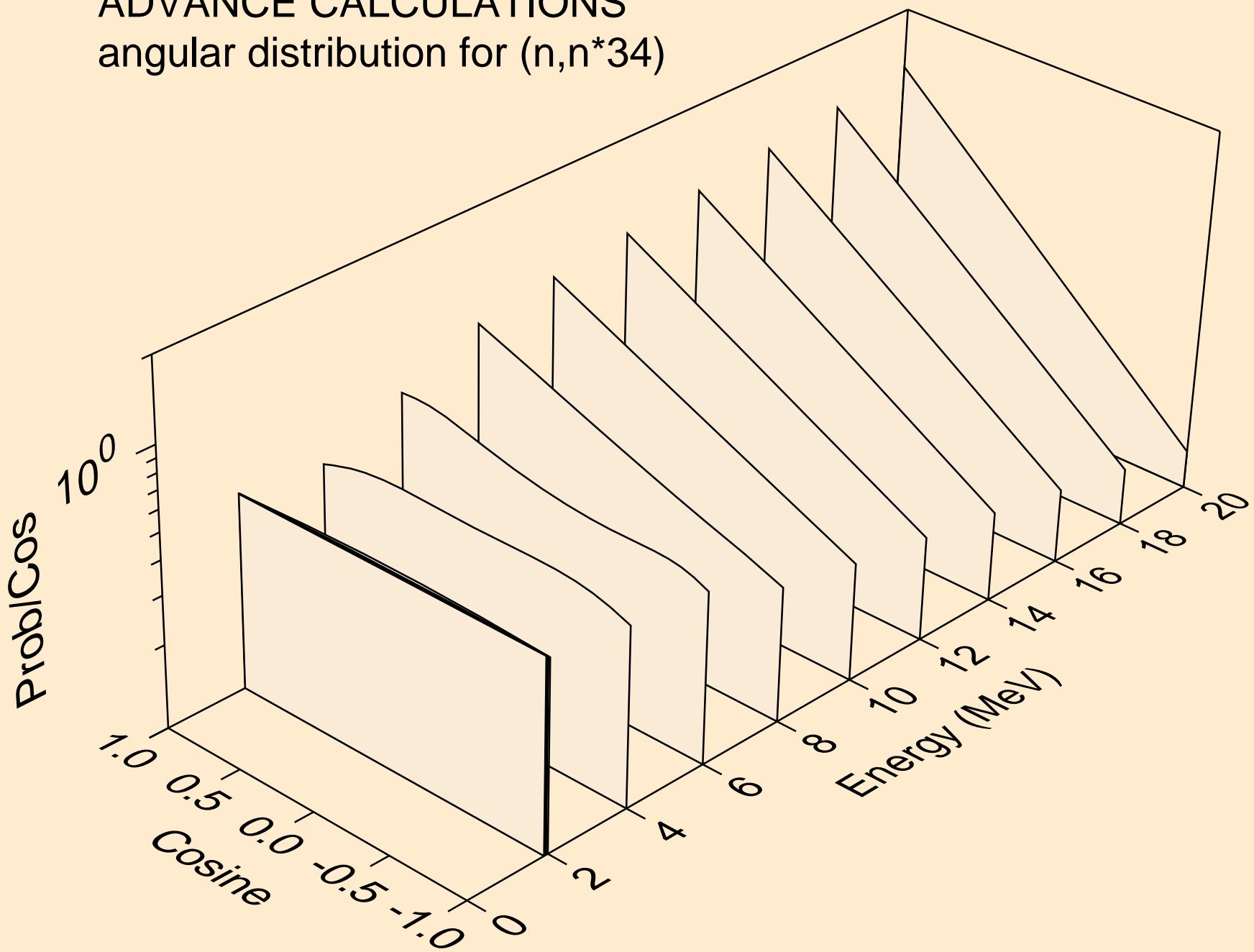
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*33)$



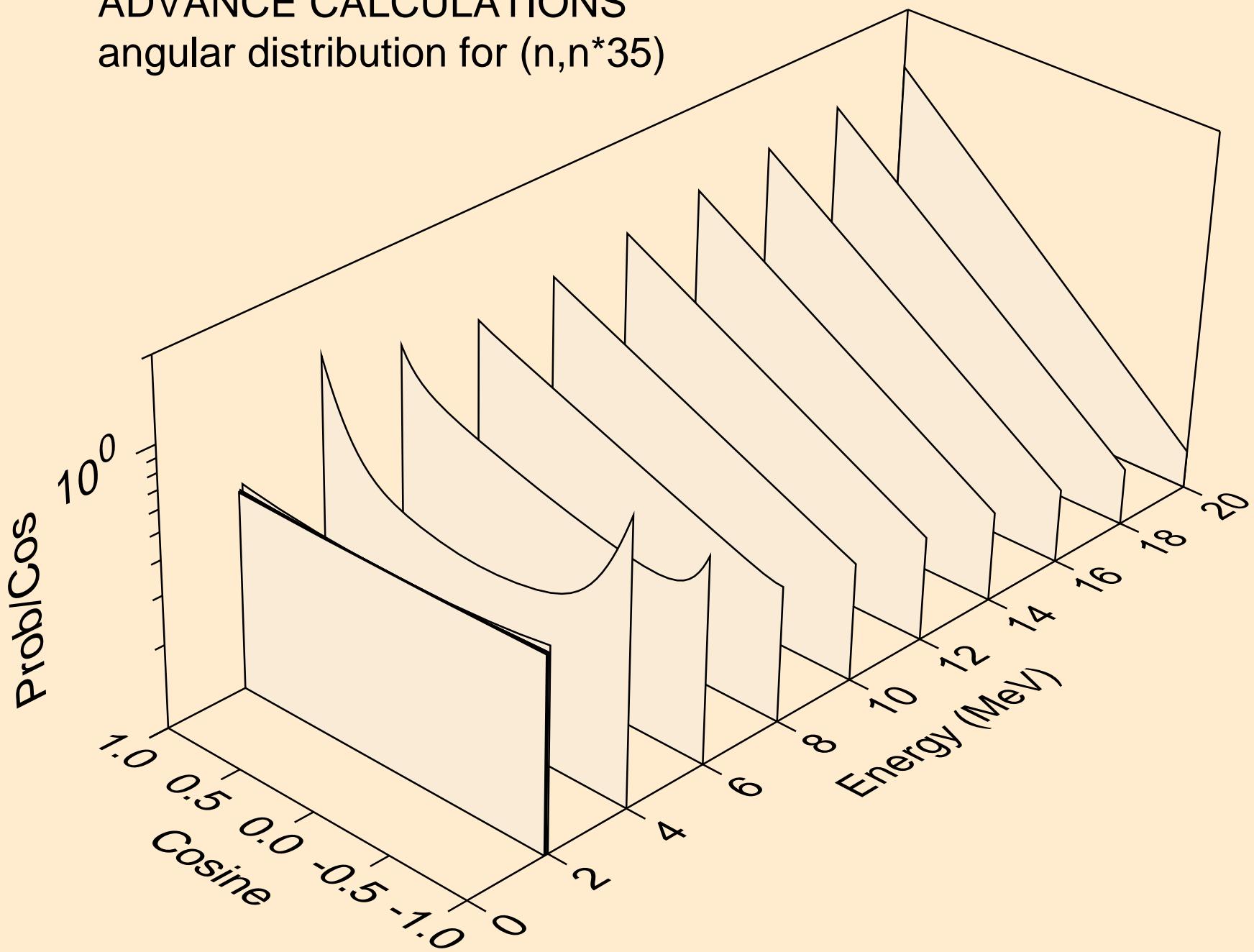
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*34)



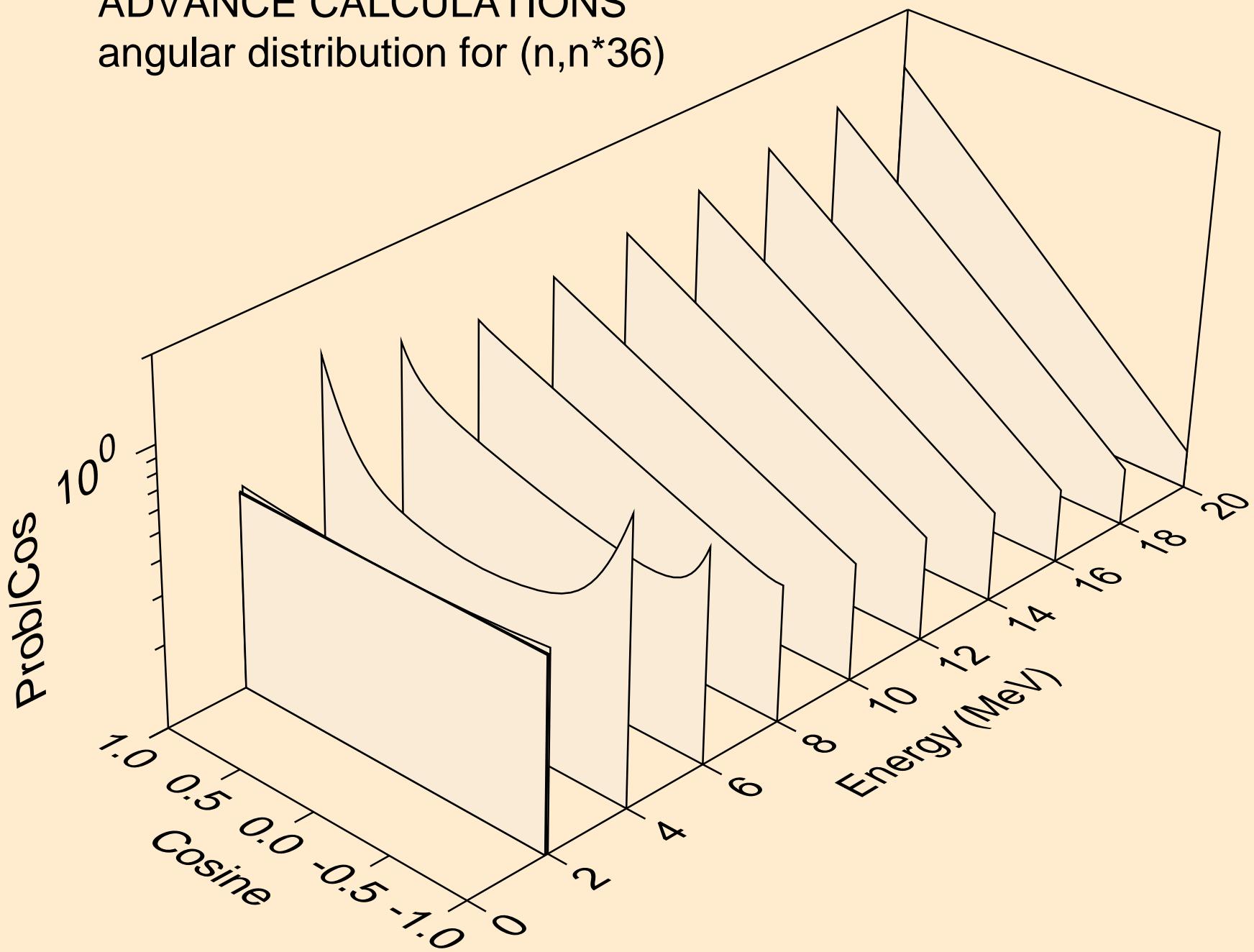
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*35)



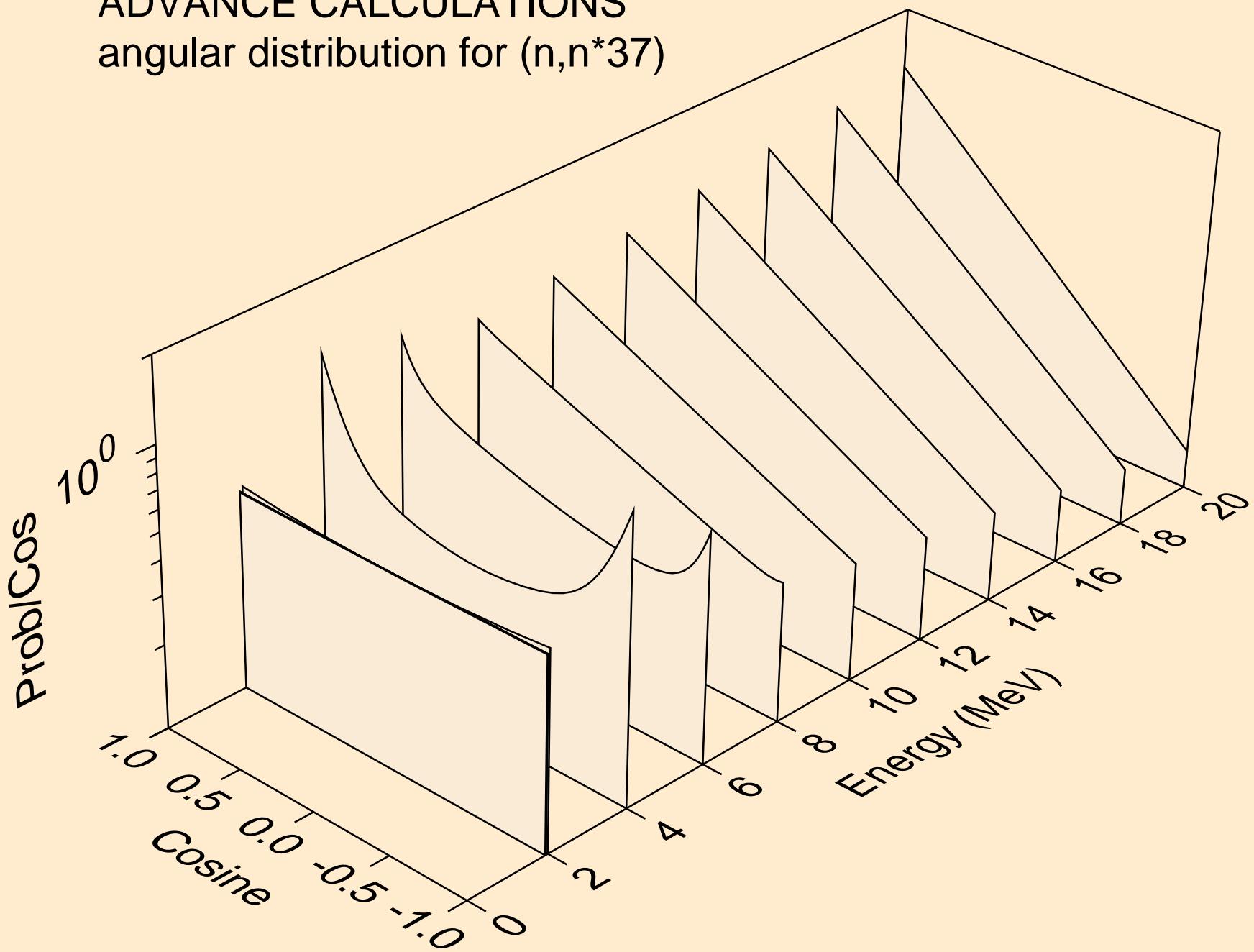
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*36)$



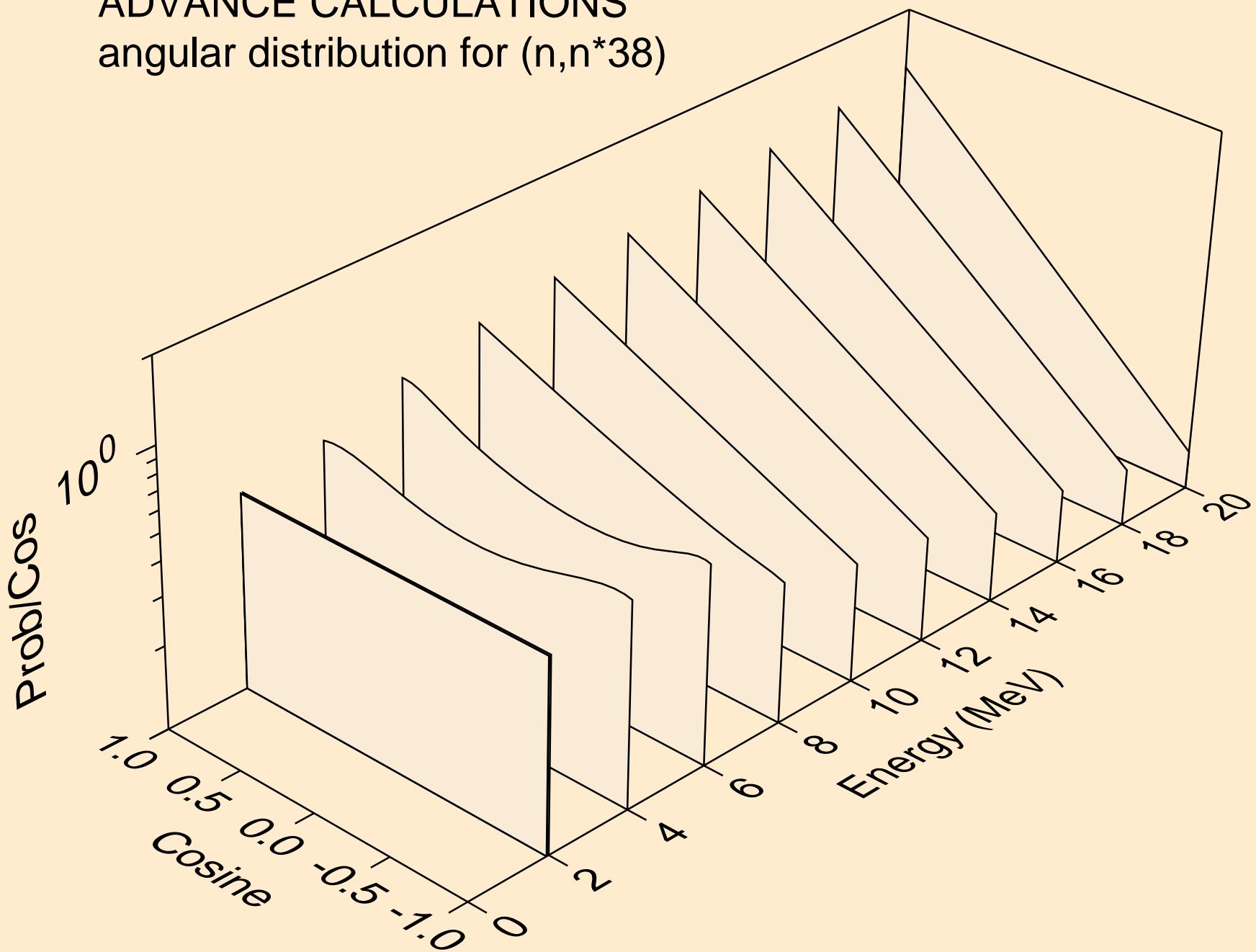
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*37)



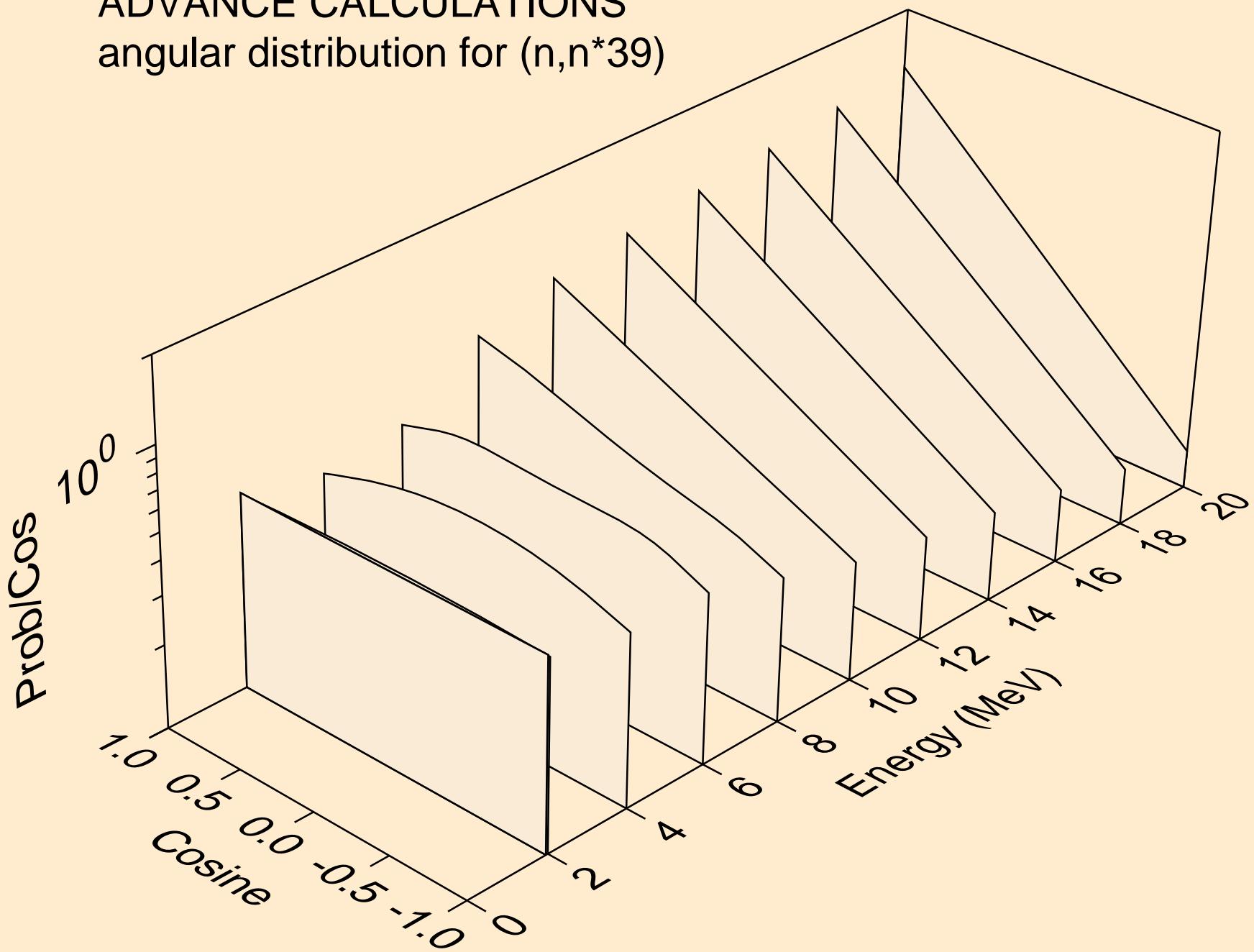
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*38)



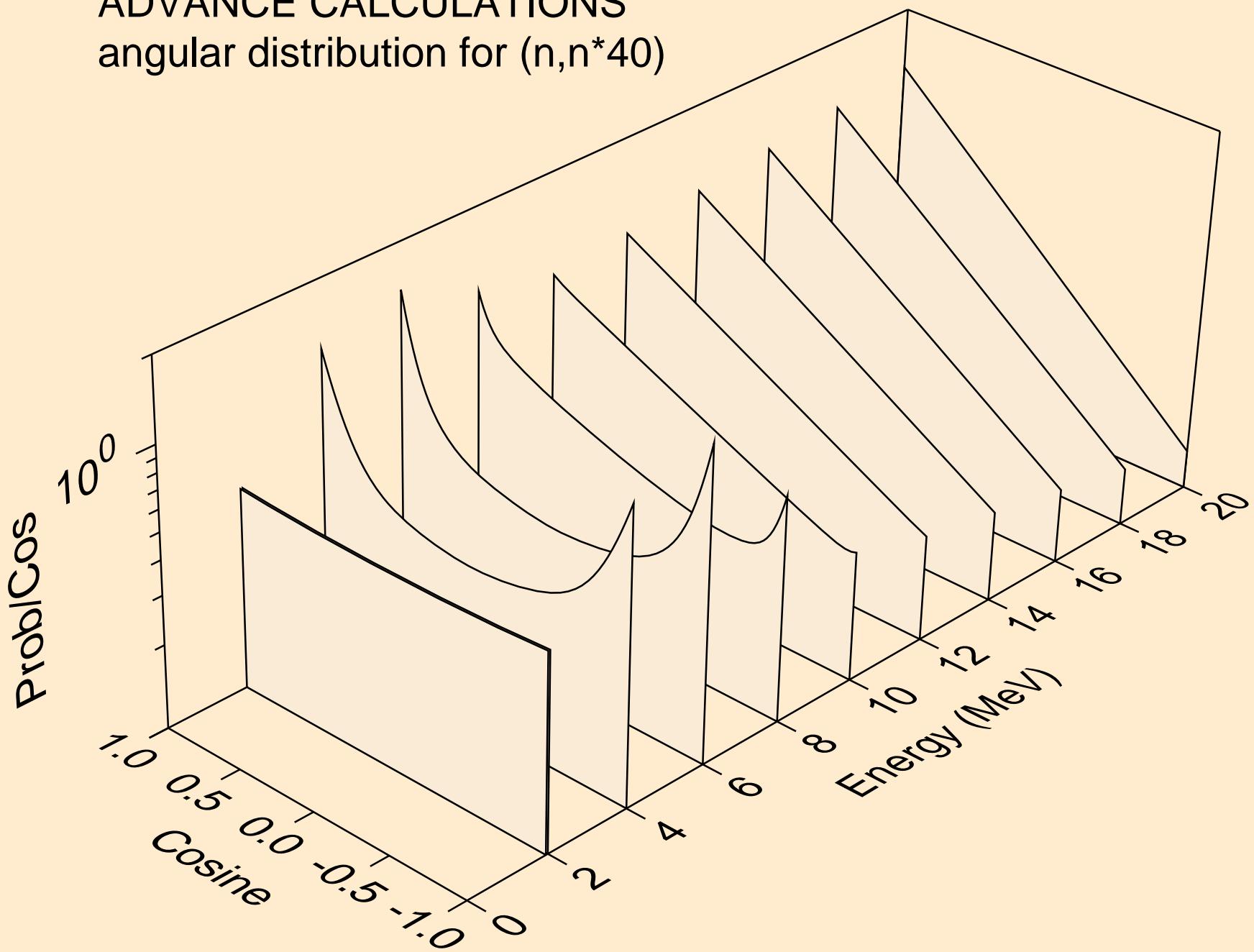
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*39)



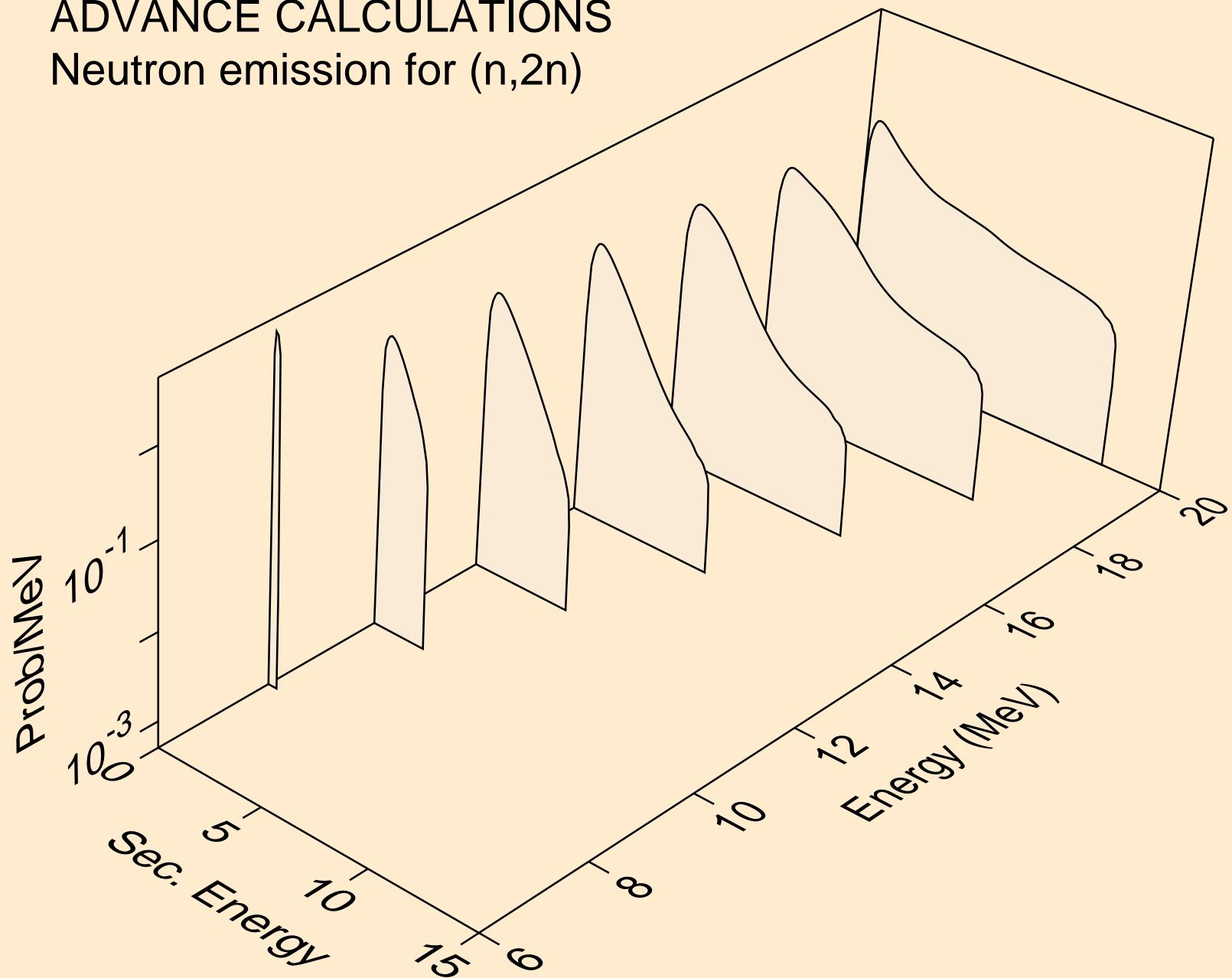
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*40)



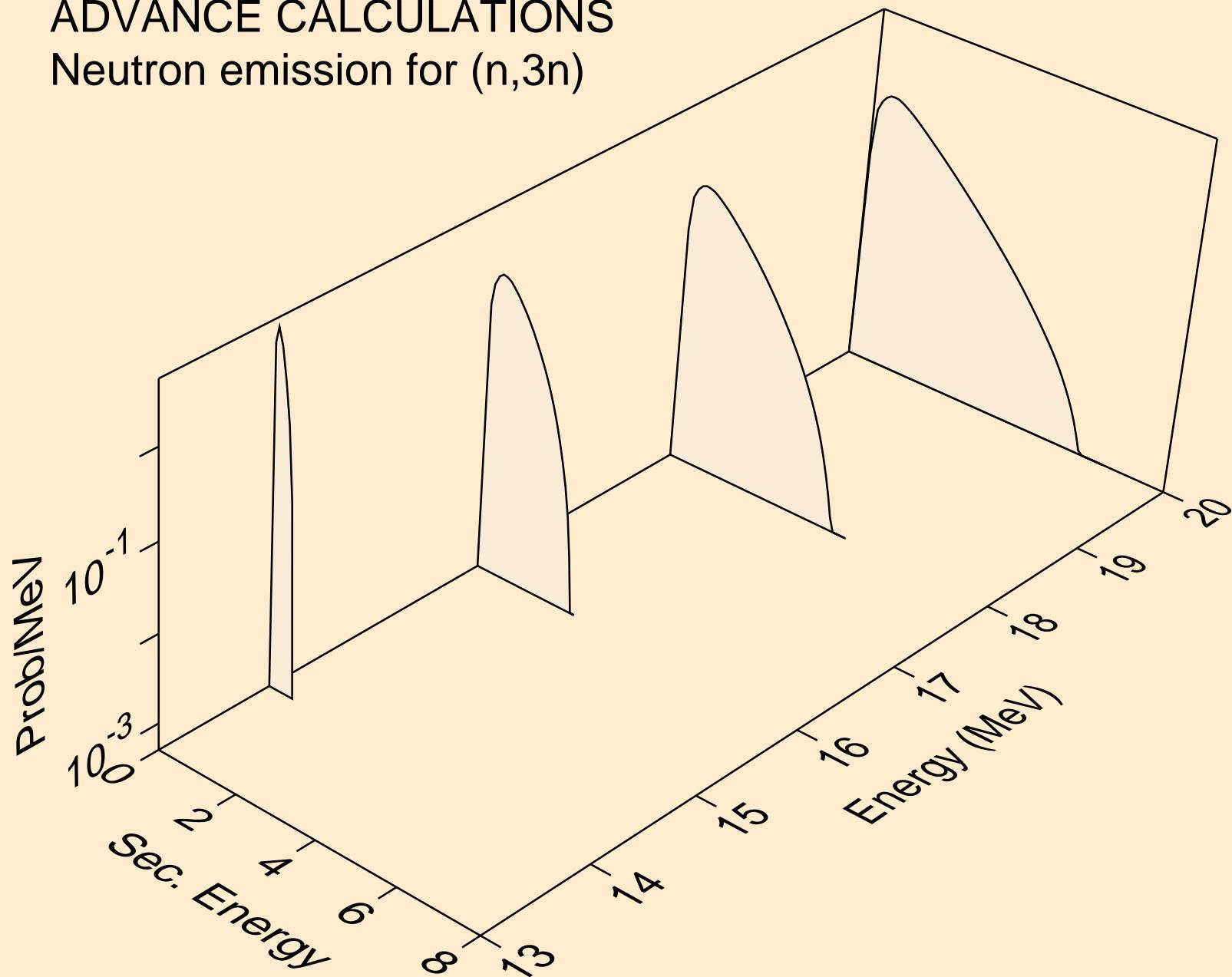
# ADVANCE CALCULATIONS

## Neutron emission for (n,2n)



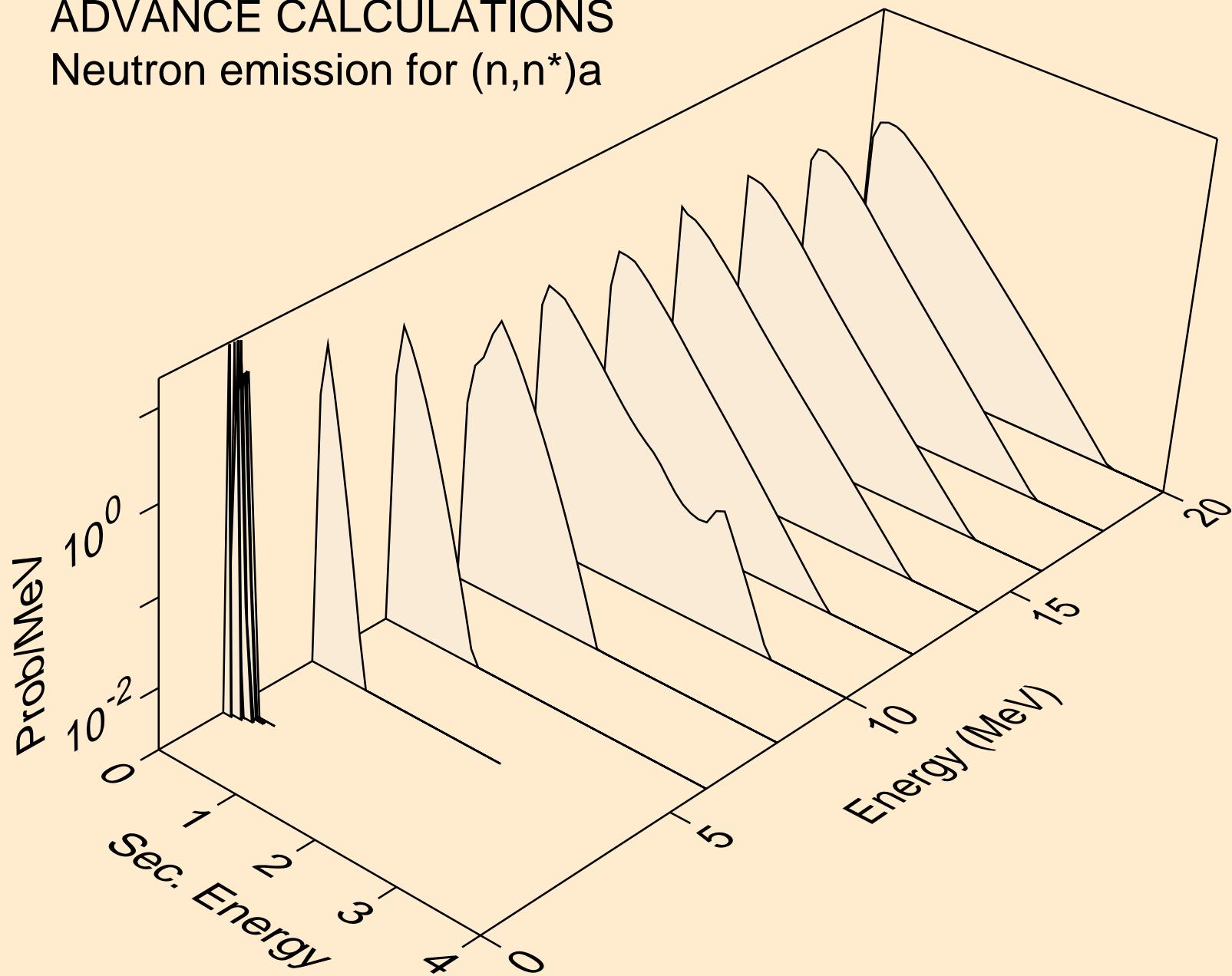
# ADVANCE CALCULATIONS

## Neutron emission for (n,3n)



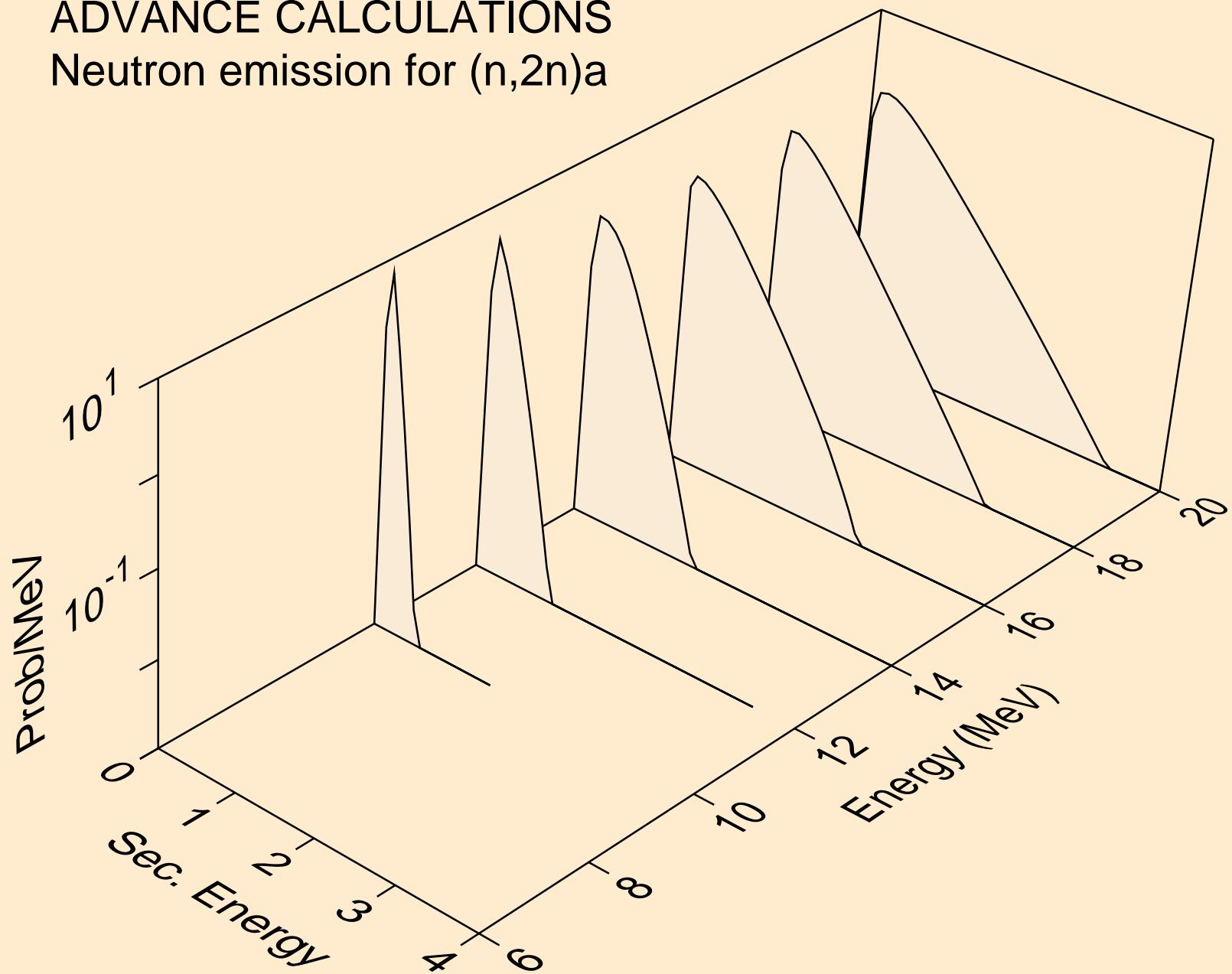
# ADVANCE CALCULATIONS

## Neutron emission for $(n,n^*)a$



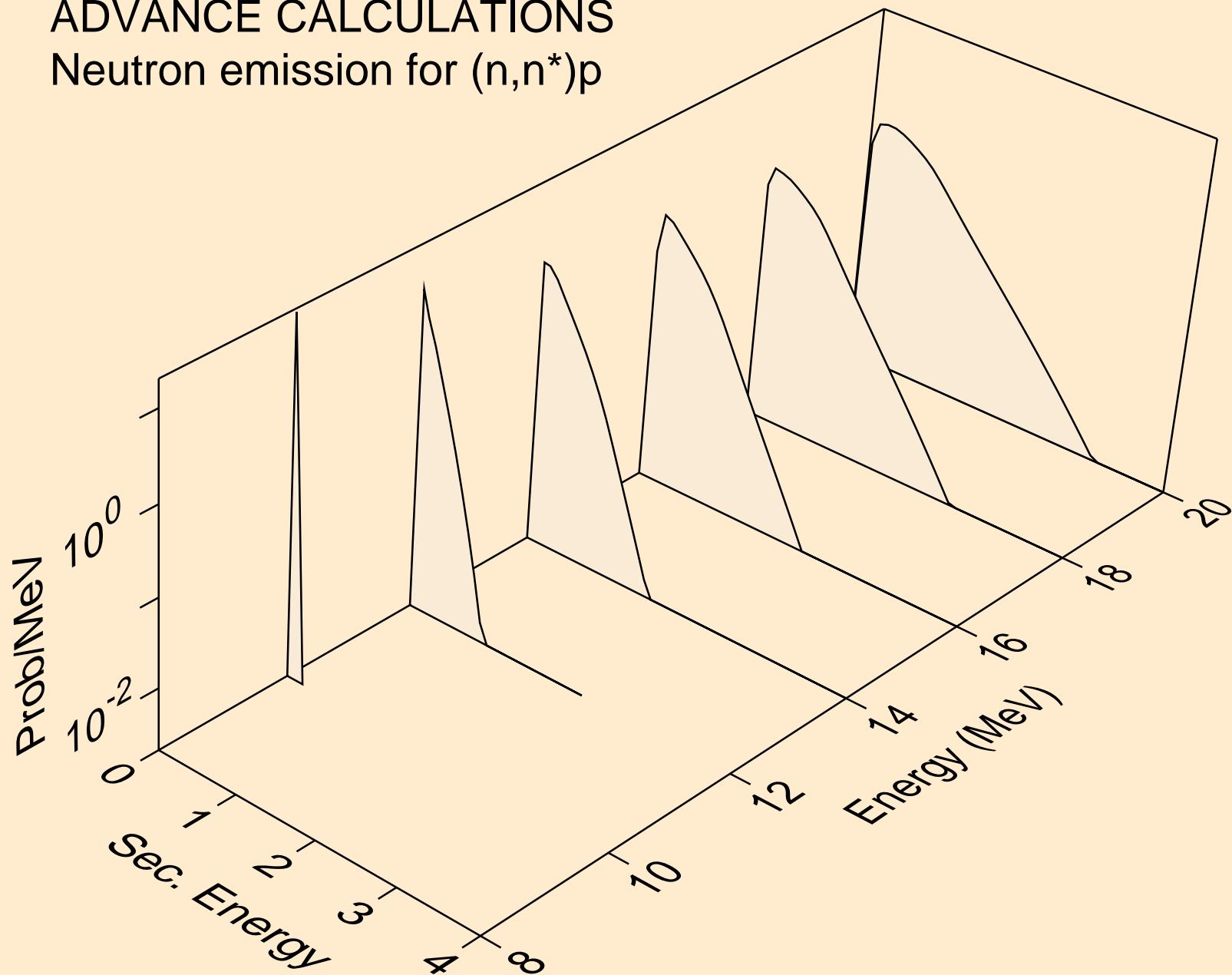
# ADVANCE CALCULATIONS

## Neutron emission for $(n,2n)a$



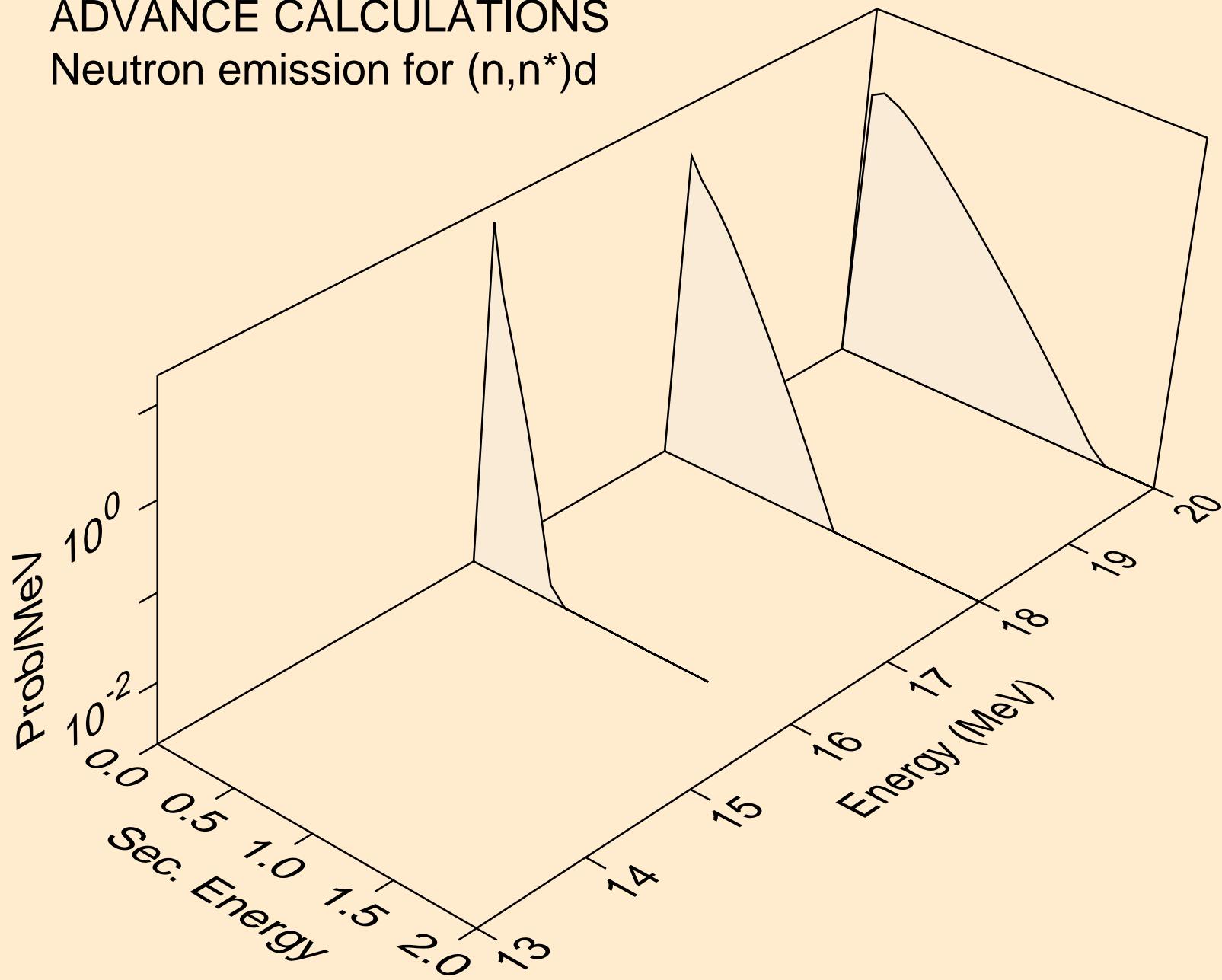
# ADVANCE CALCULATIONS

## Neutron emission for $(n,n^*)p$



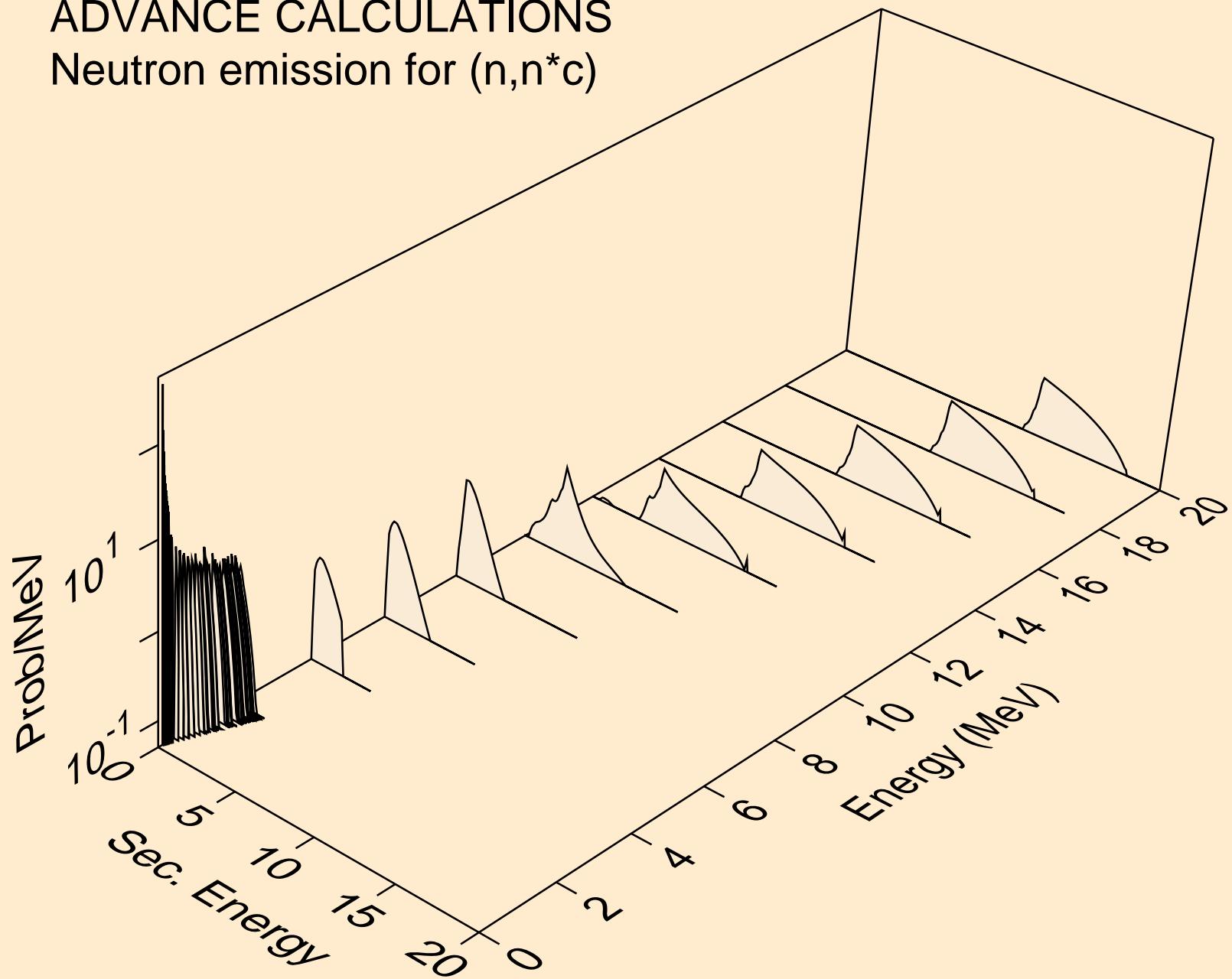
# ADVANCE CALCULATIONS

## Neutron emission for $(n,n^*)d$



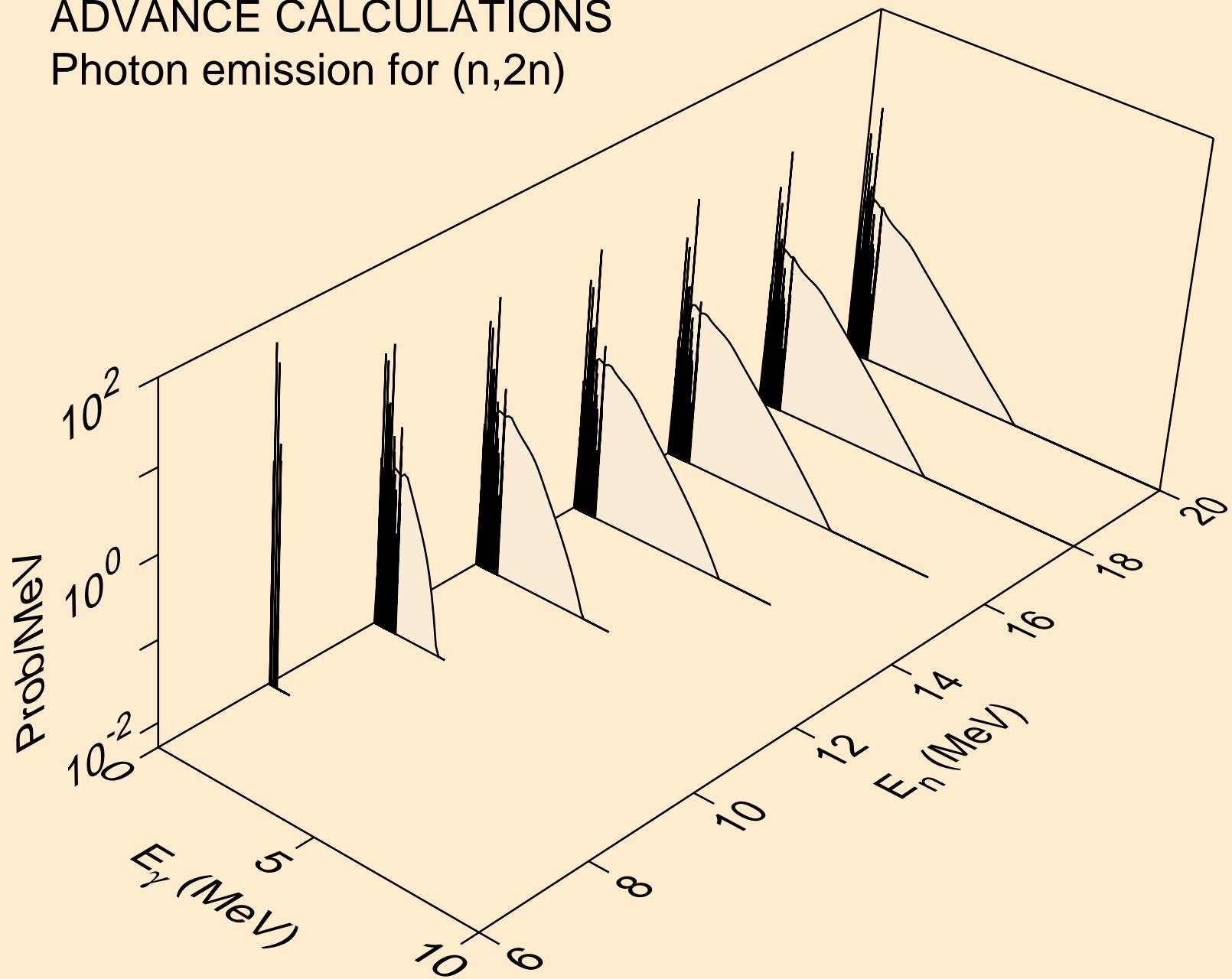
# ADVANCE CALCULATIONS

## Neutron emission for $(n,n^*c)$



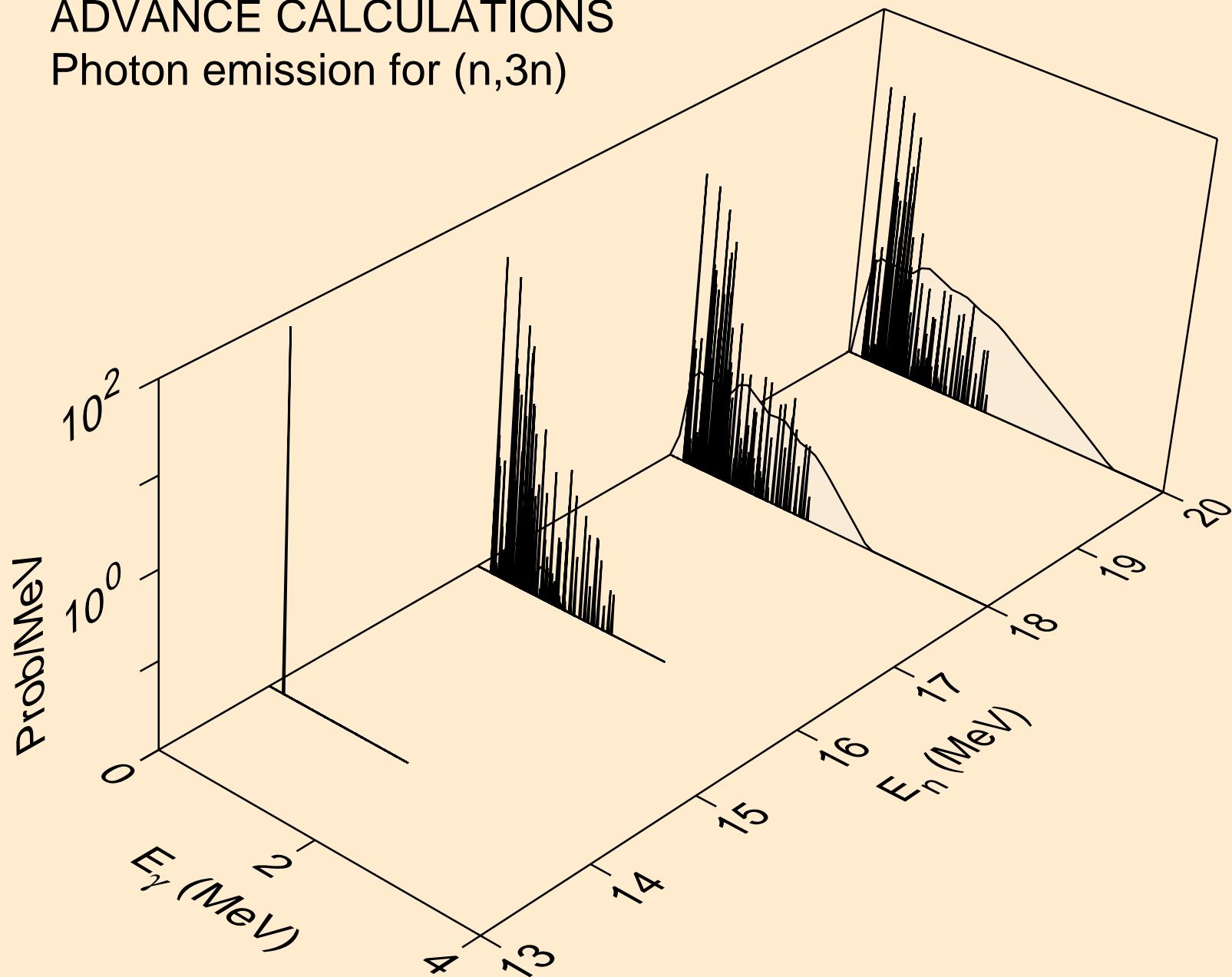
# ADVANCE CALCULATIONS

## Photon emission for (n,2n)



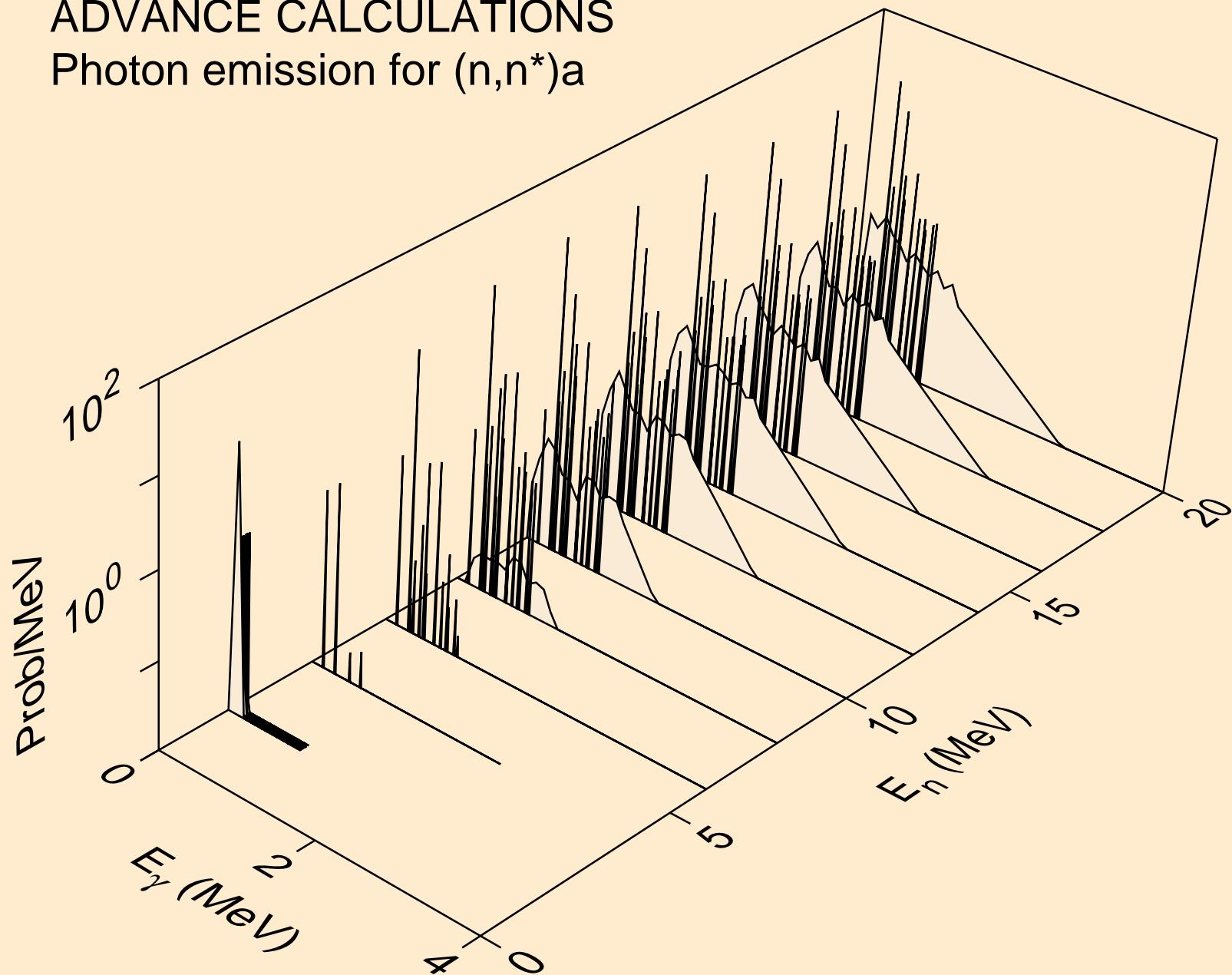
# ADVANCE CALCULATIONS

## Photon emission for (n,3n)



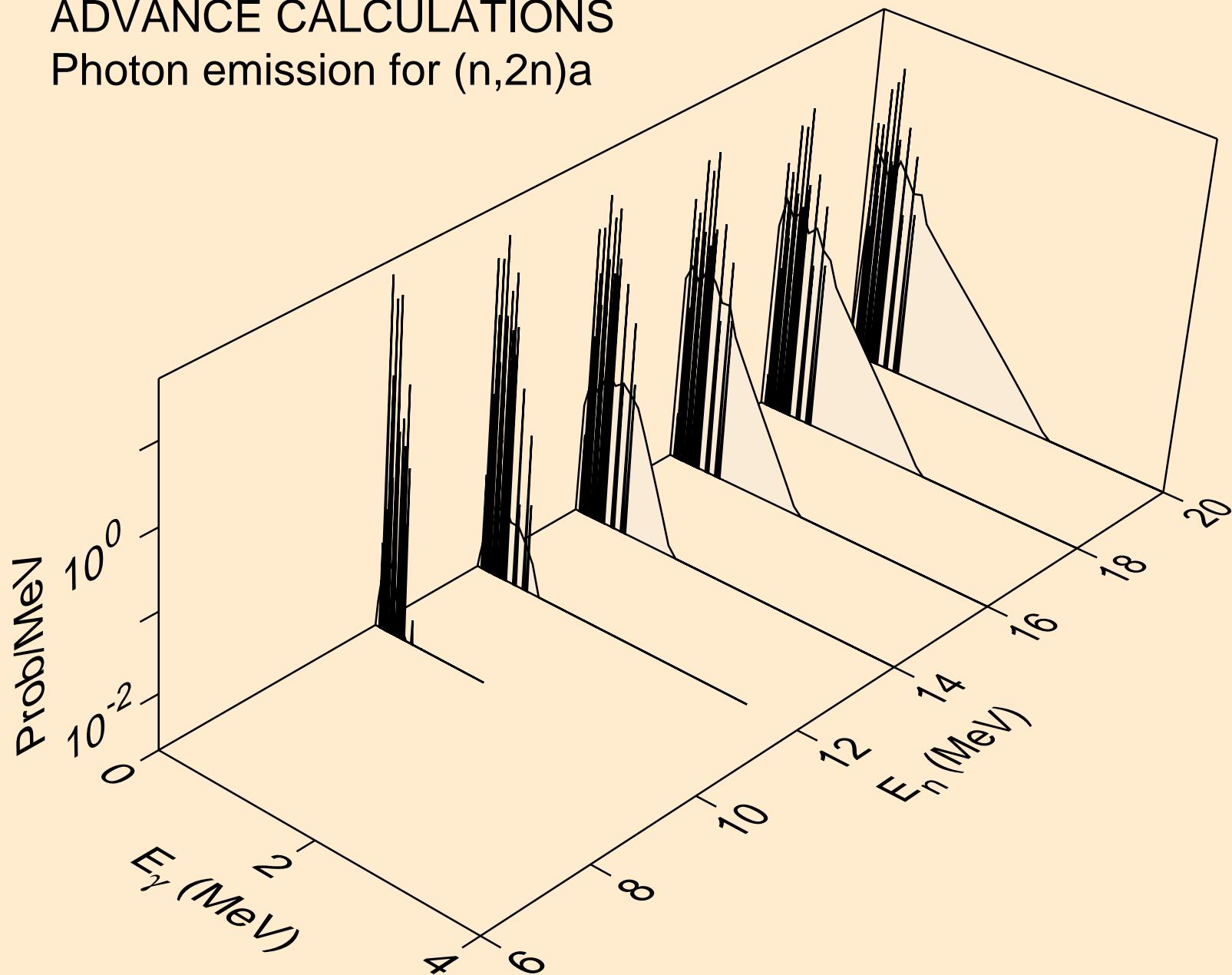
# ADVANCE CALCULATIONS

## Photon emission for $(n,n^*)a$



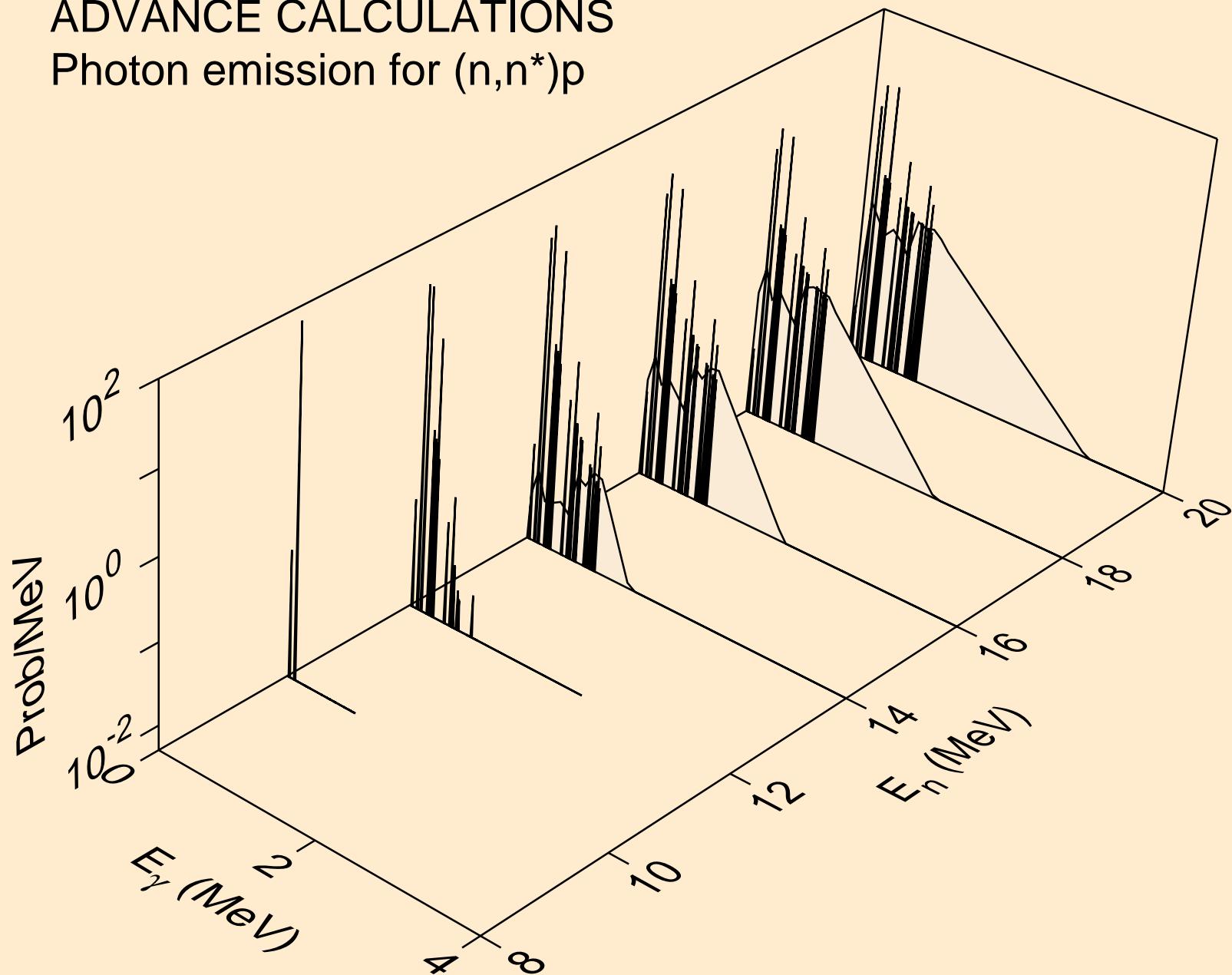
# ADVANCE CALCULATIONS

## Photon emission for (n,2n)a



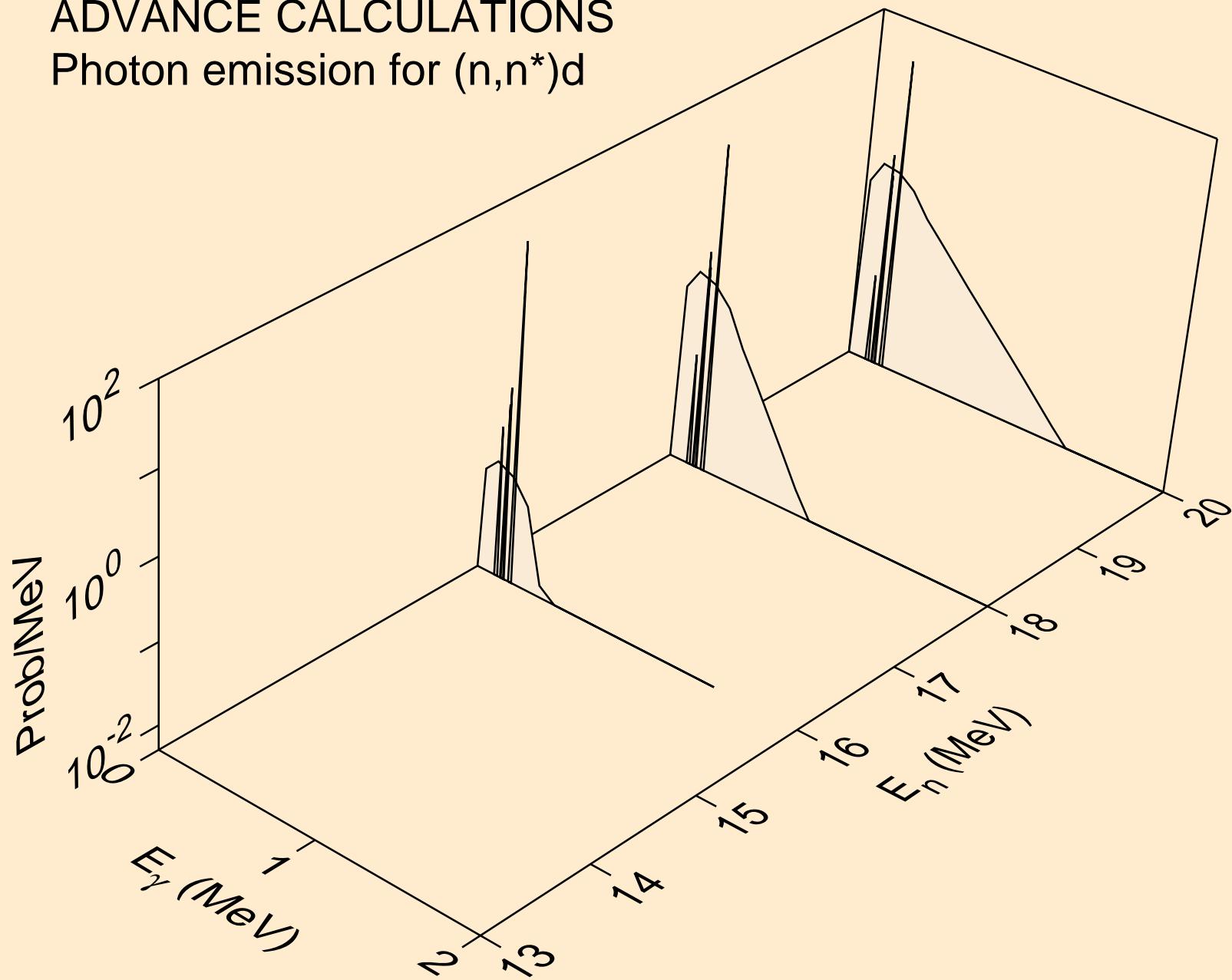
# ADVANCE CALCULATIONS

## Photon emission for $(n,n^*)p$



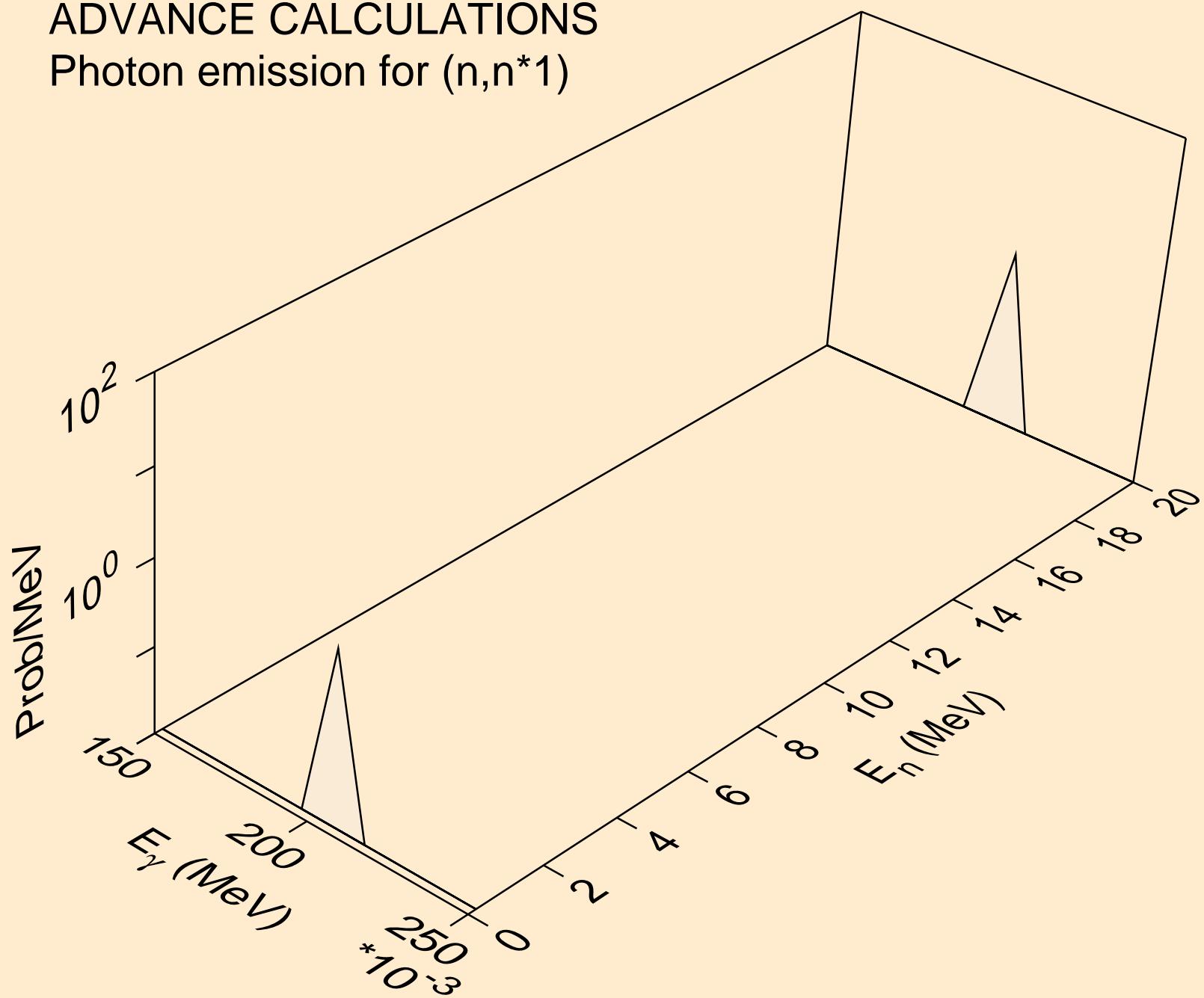
# ADVANCE CALCULATIONS

## Photon emission for $(n,n^*)d$



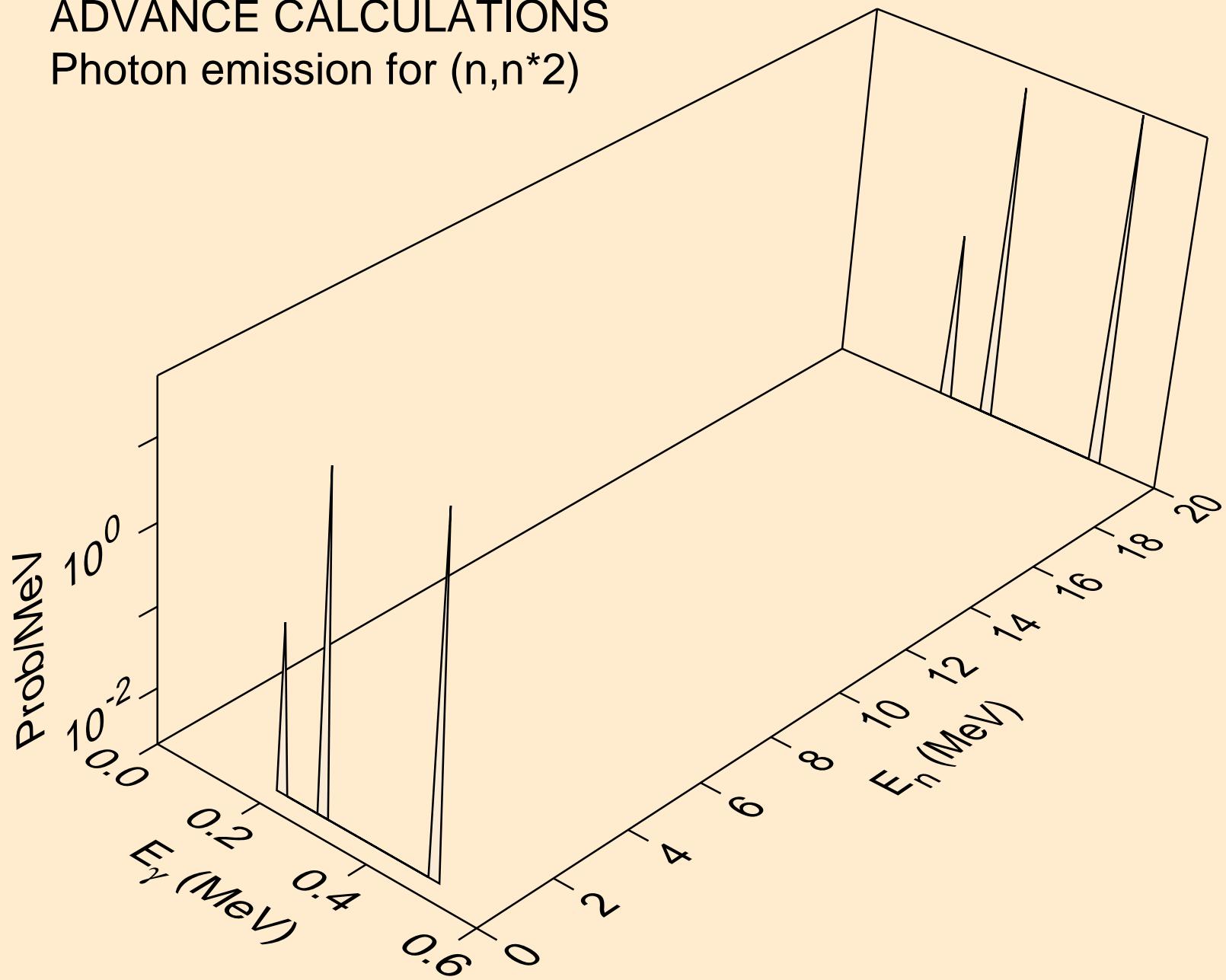
# ADVANCE CALCULATIONS

## Photon emission for (n,n\*1)



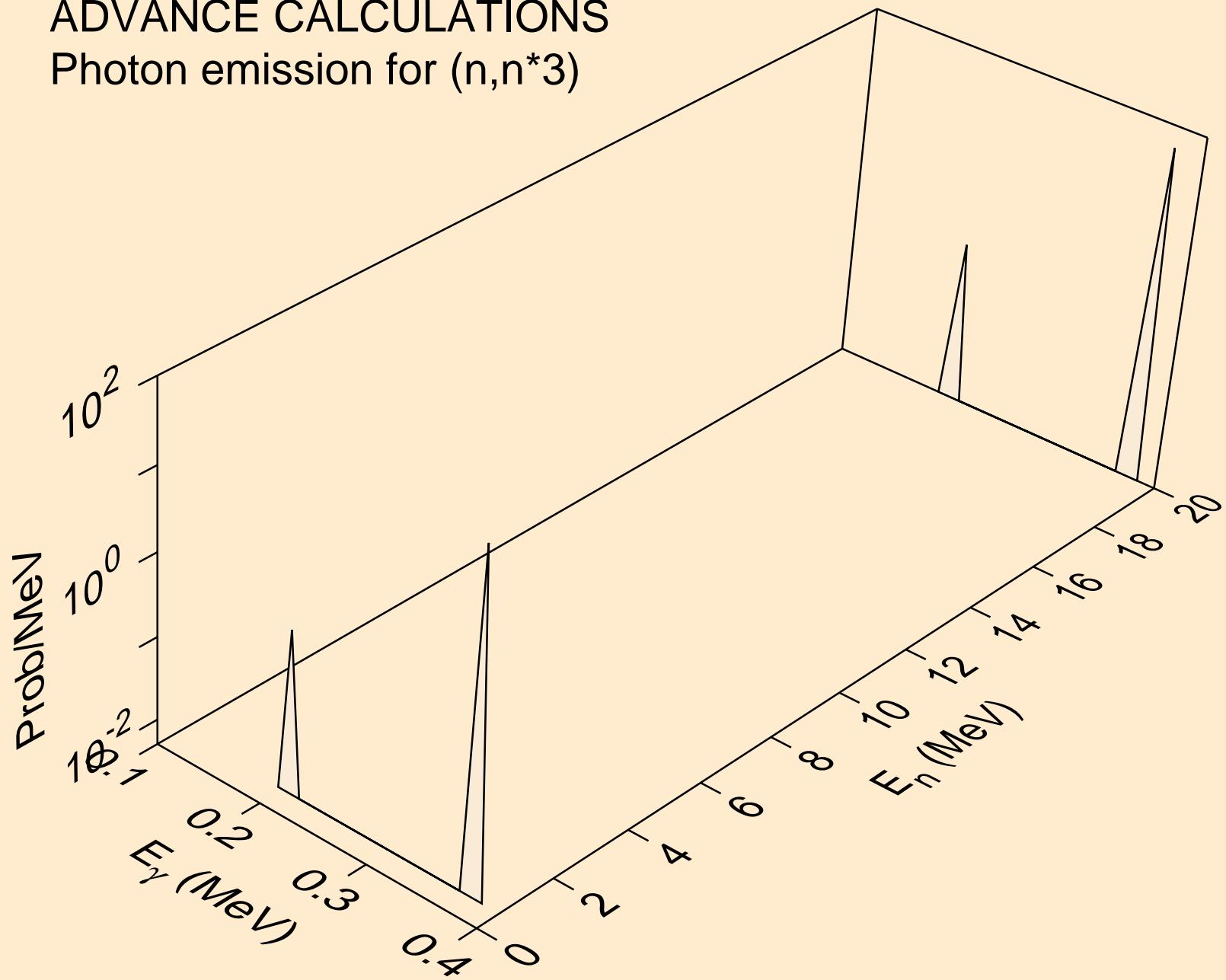
# ADVANCE CALCULATIONS

## Photon emission for (n,n\*2)



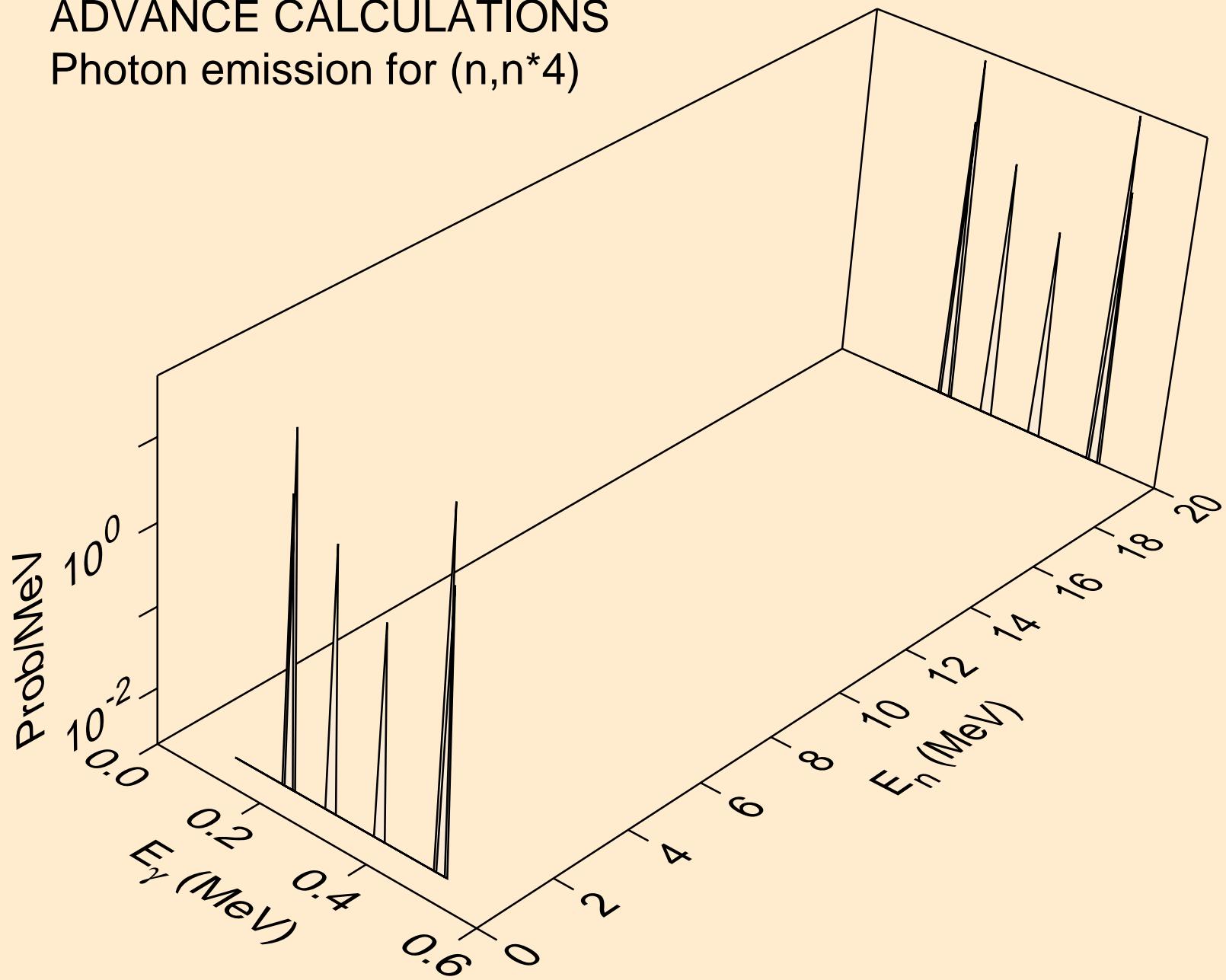
# ADVANCE CALCULATIONS

## Photon emission for (n,n\*3)



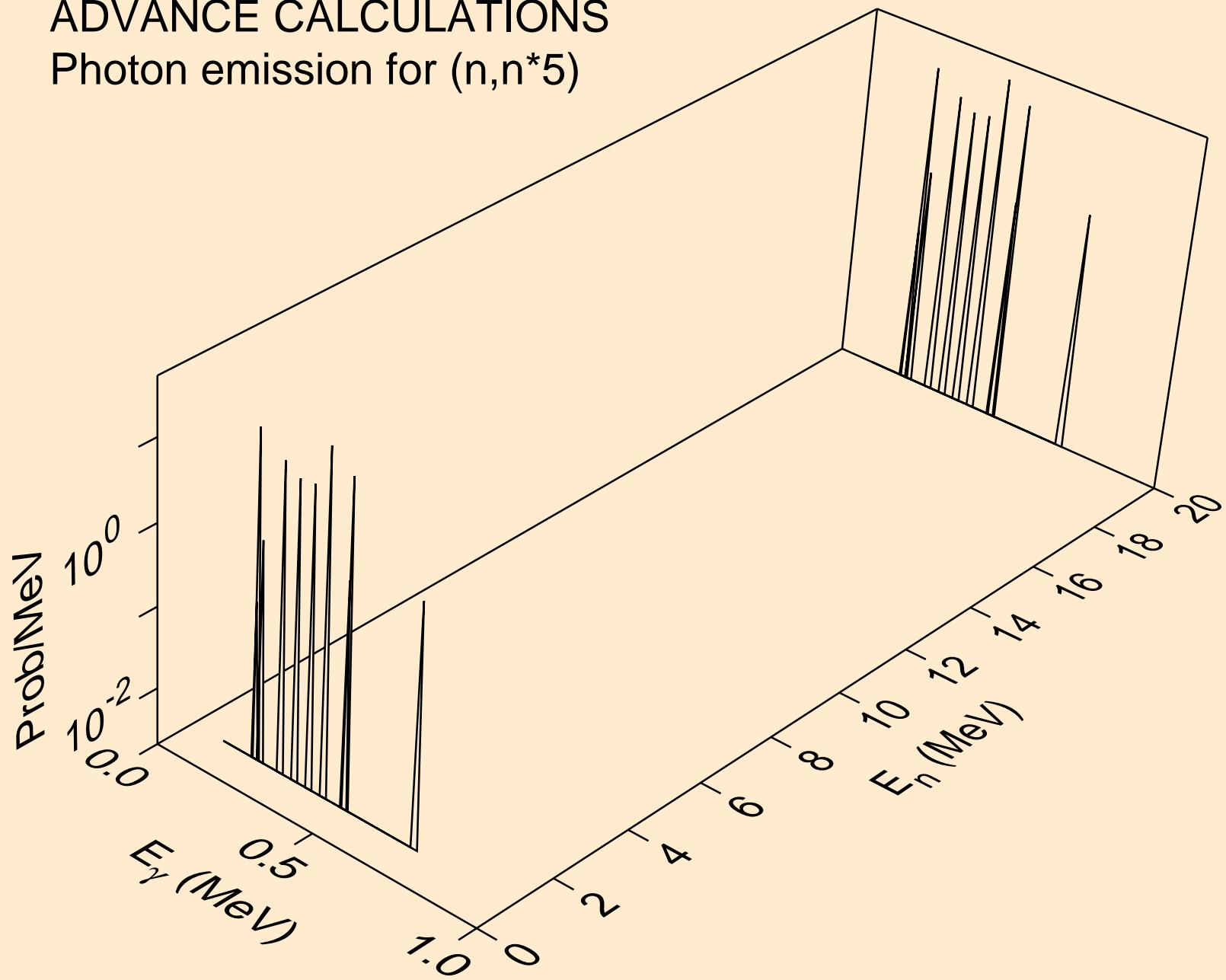
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^*4$ )



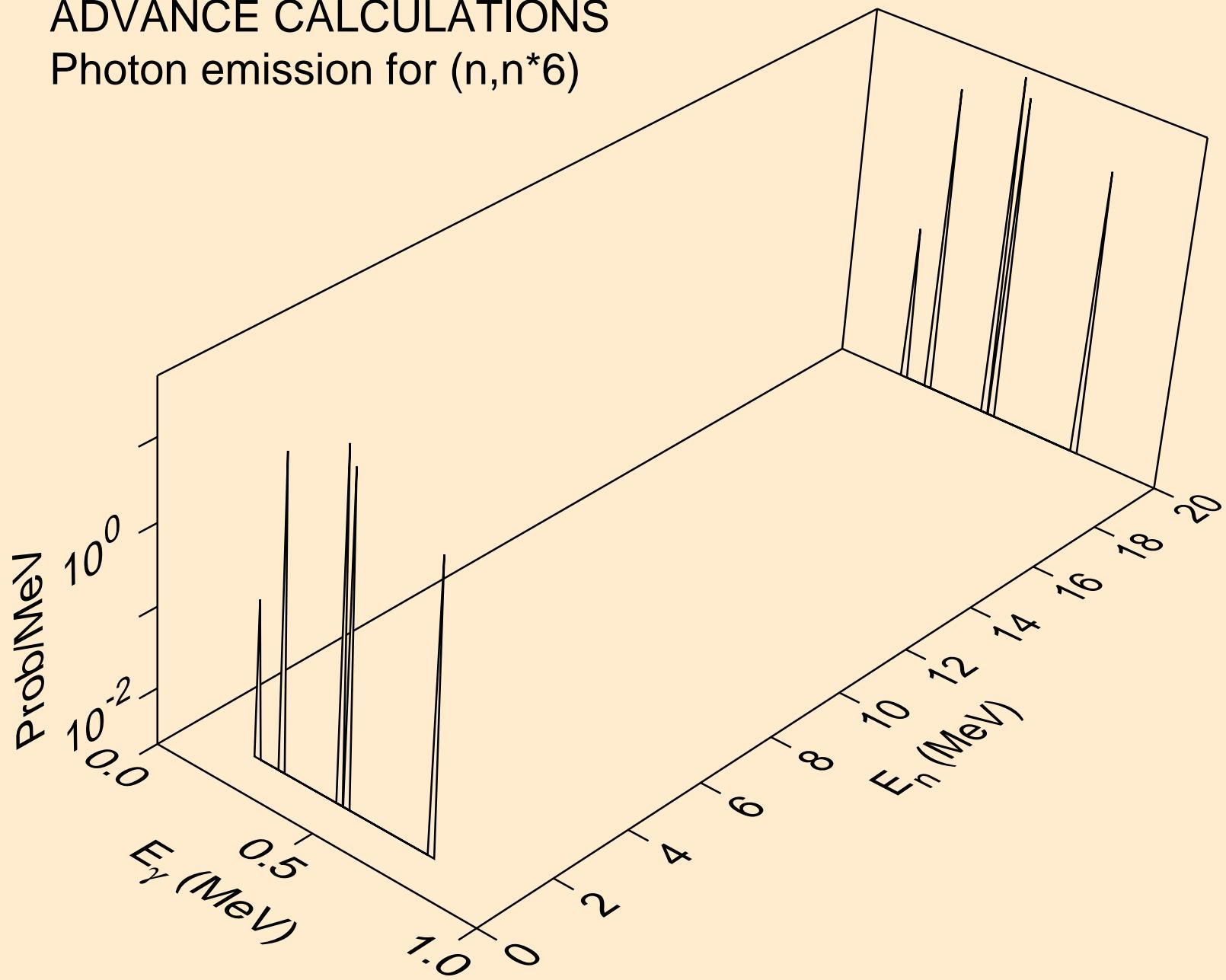
# ADVANCE CALCULATIONS

## Photon emission for (n,n\*5)



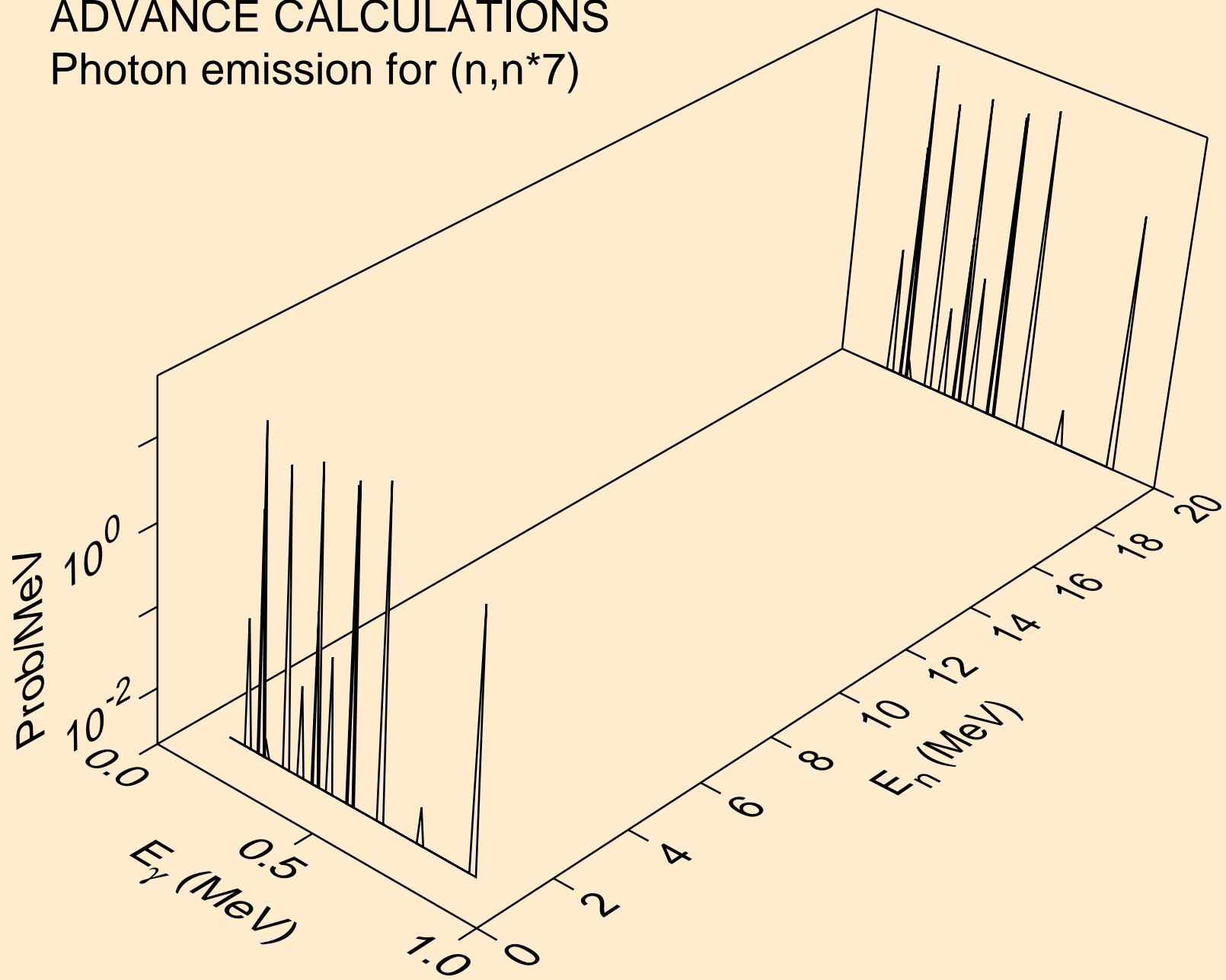
# ADVANCE CALCULATIONS

## Photon emission for (n,n\*6)



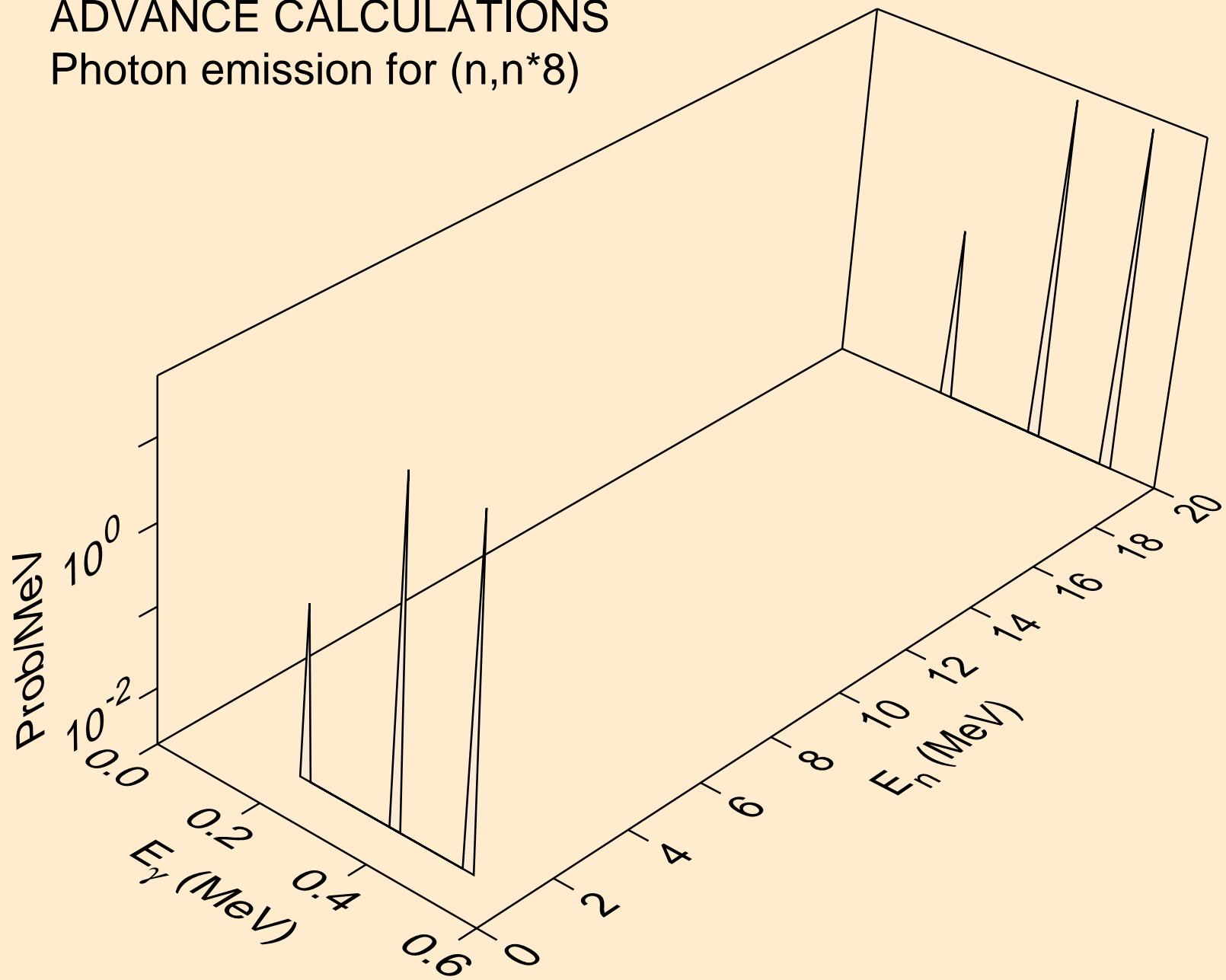
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^* 7$ )



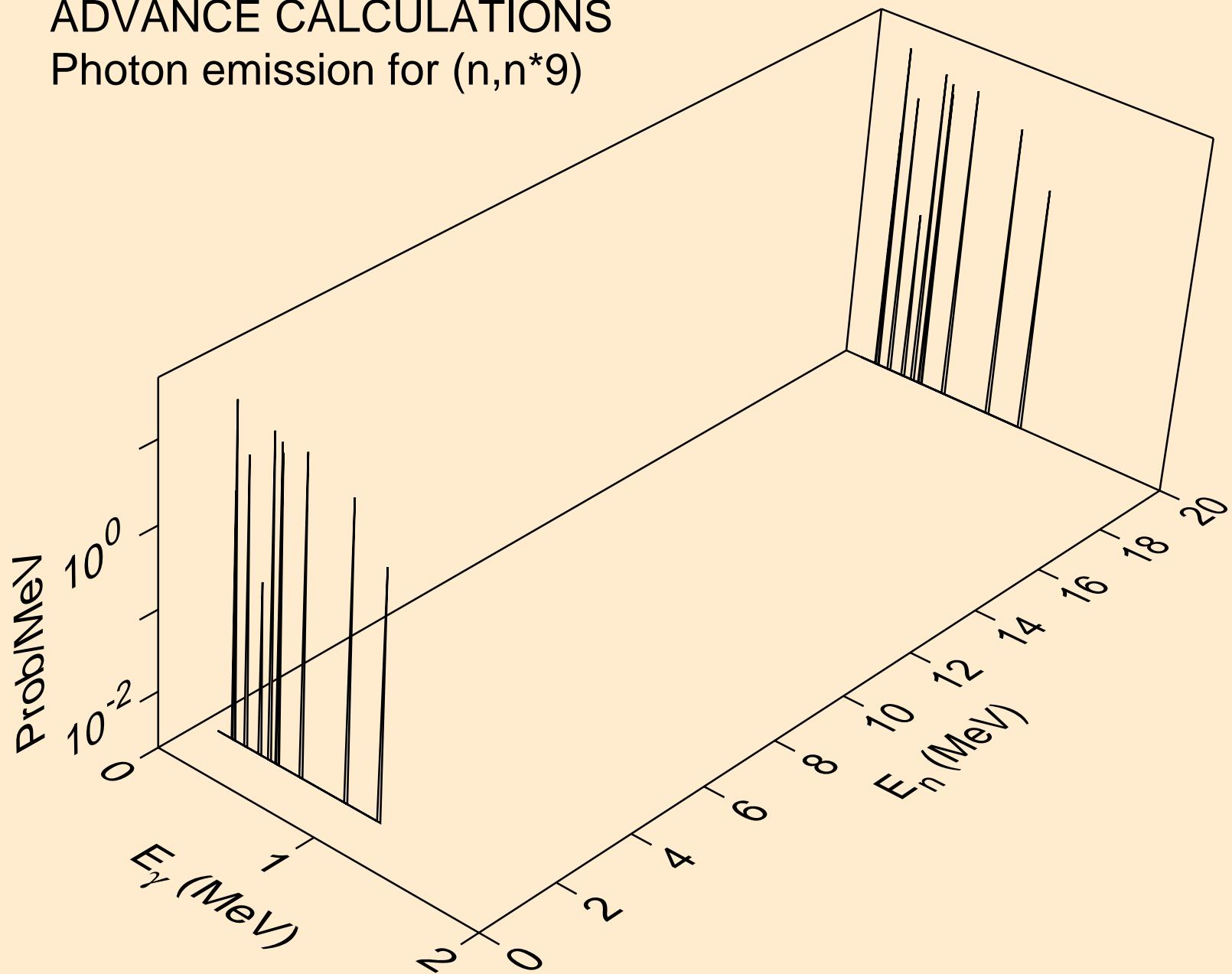
# ADVANCE CALCULATIONS

## Photon emission for (n,n\*8)



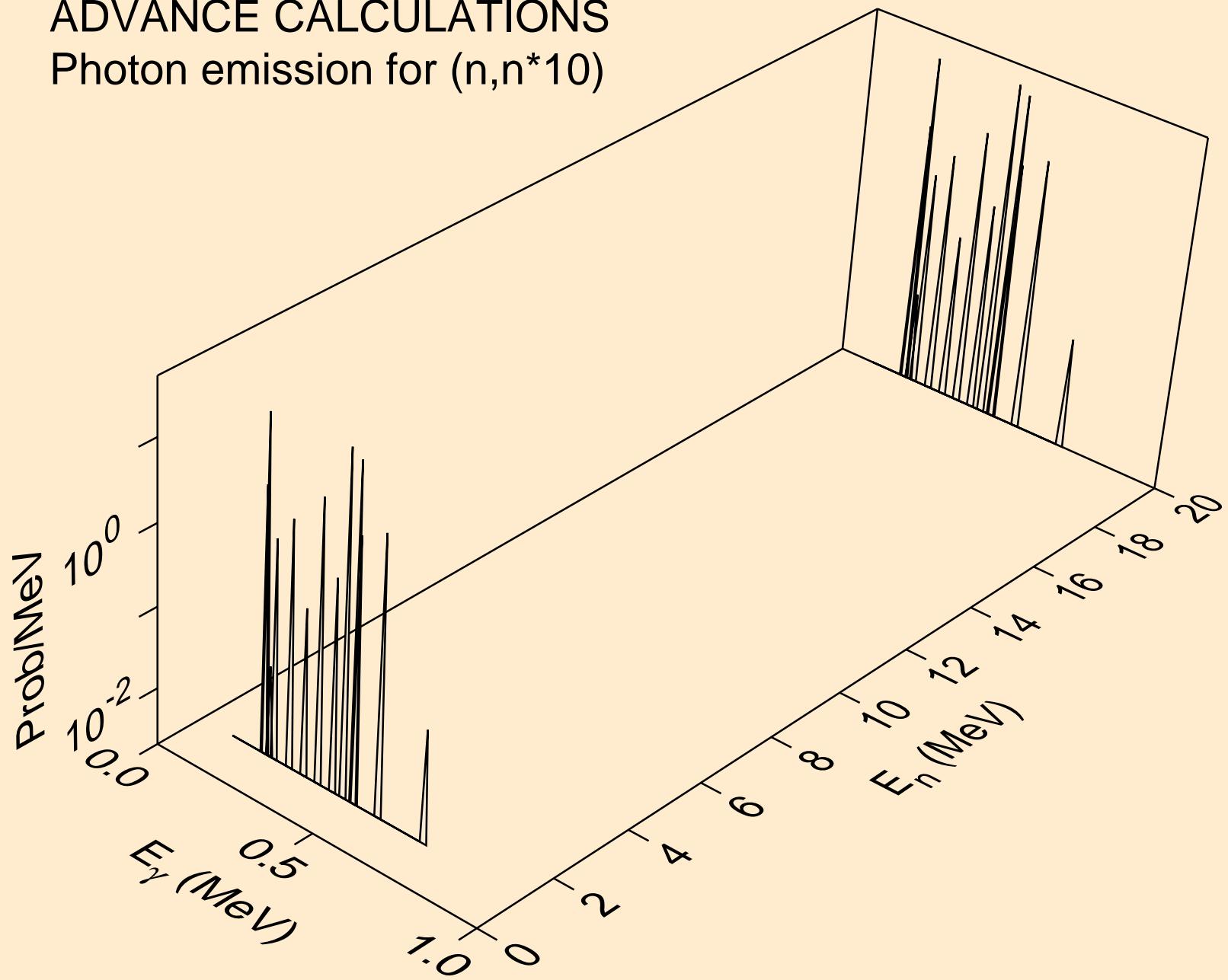
# ADVANCE CALCULATIONS

## Photon emission for (n,n\*9)



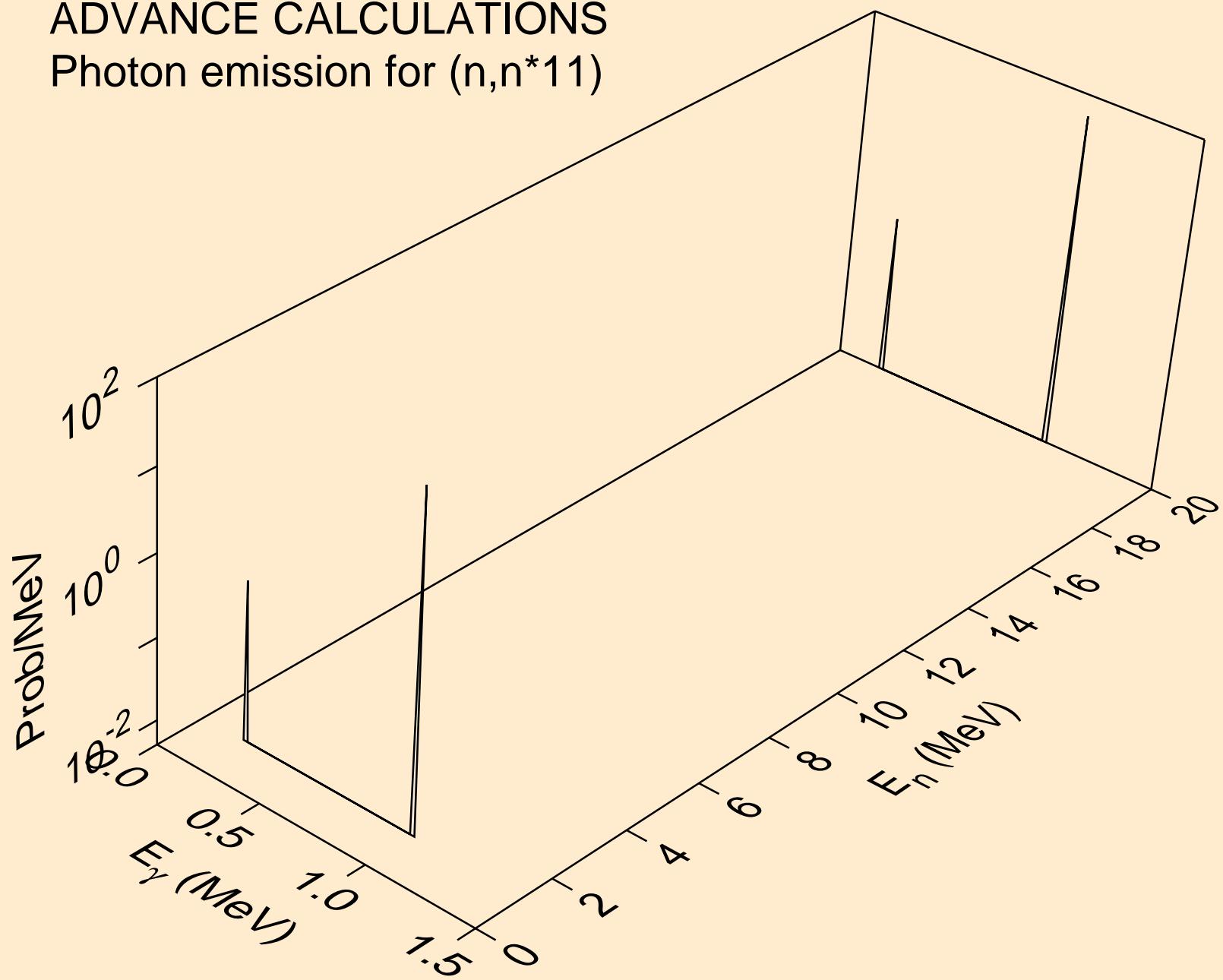
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^*$ ) $\times 10$



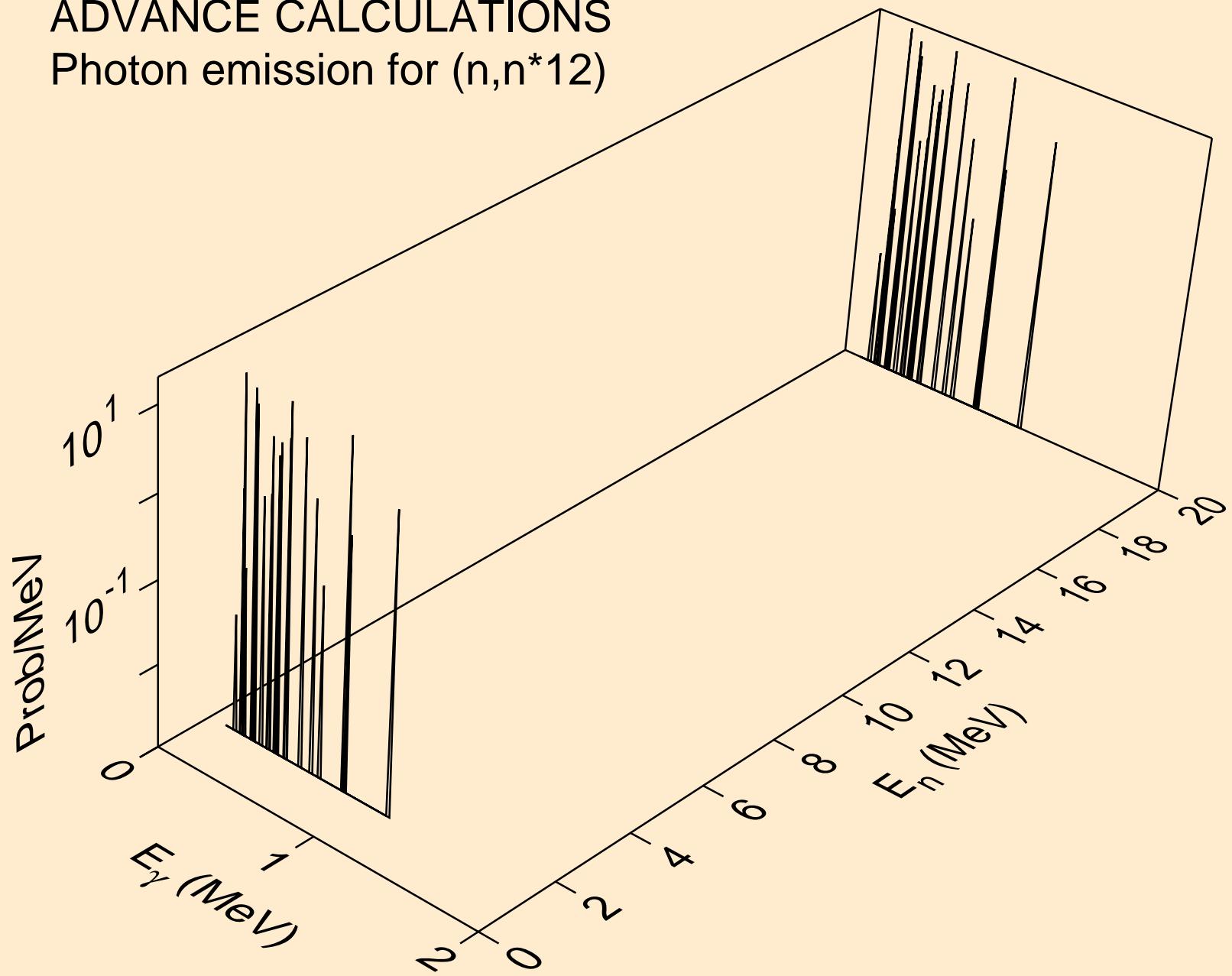
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^* 11$ )



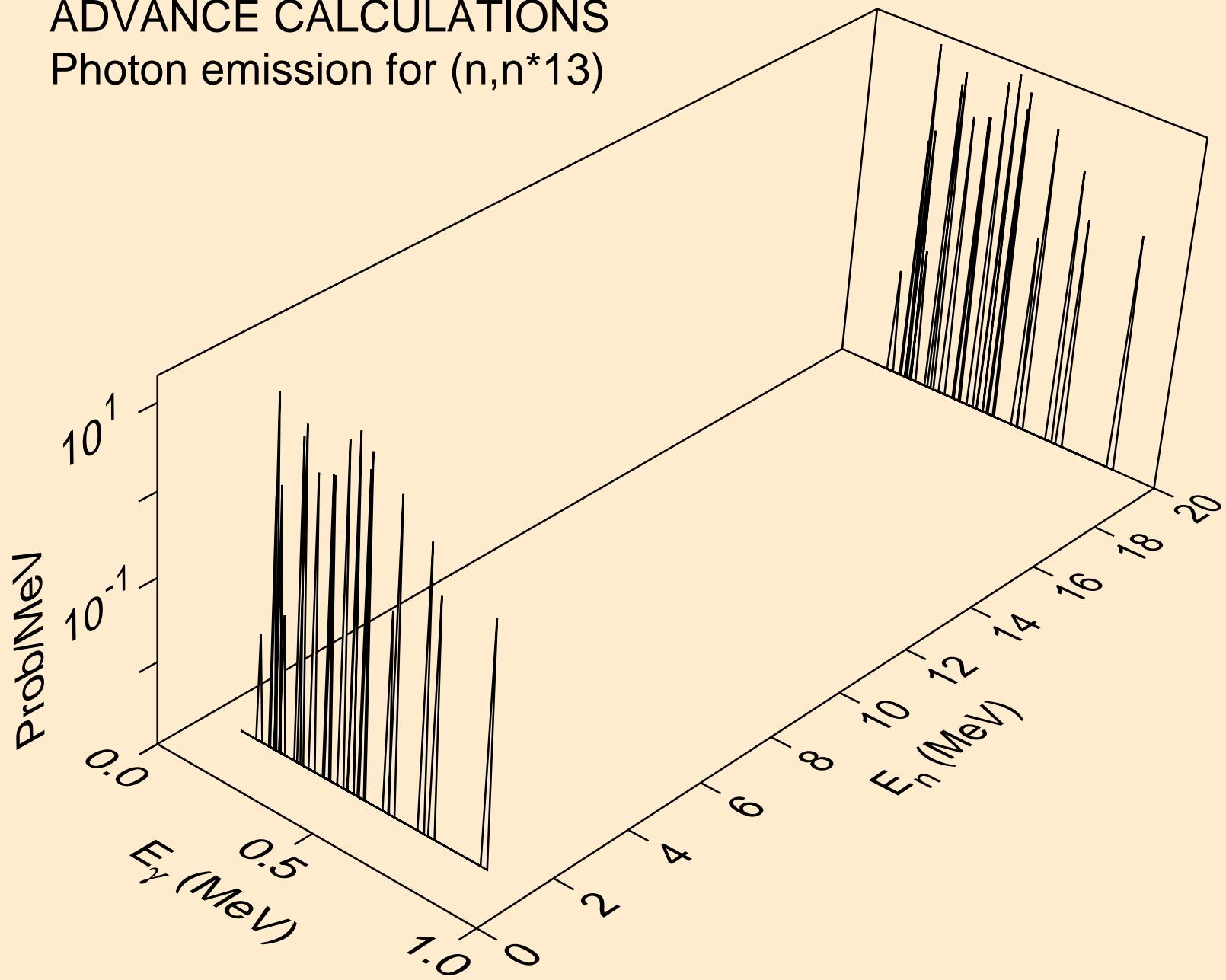
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^* 12$ )



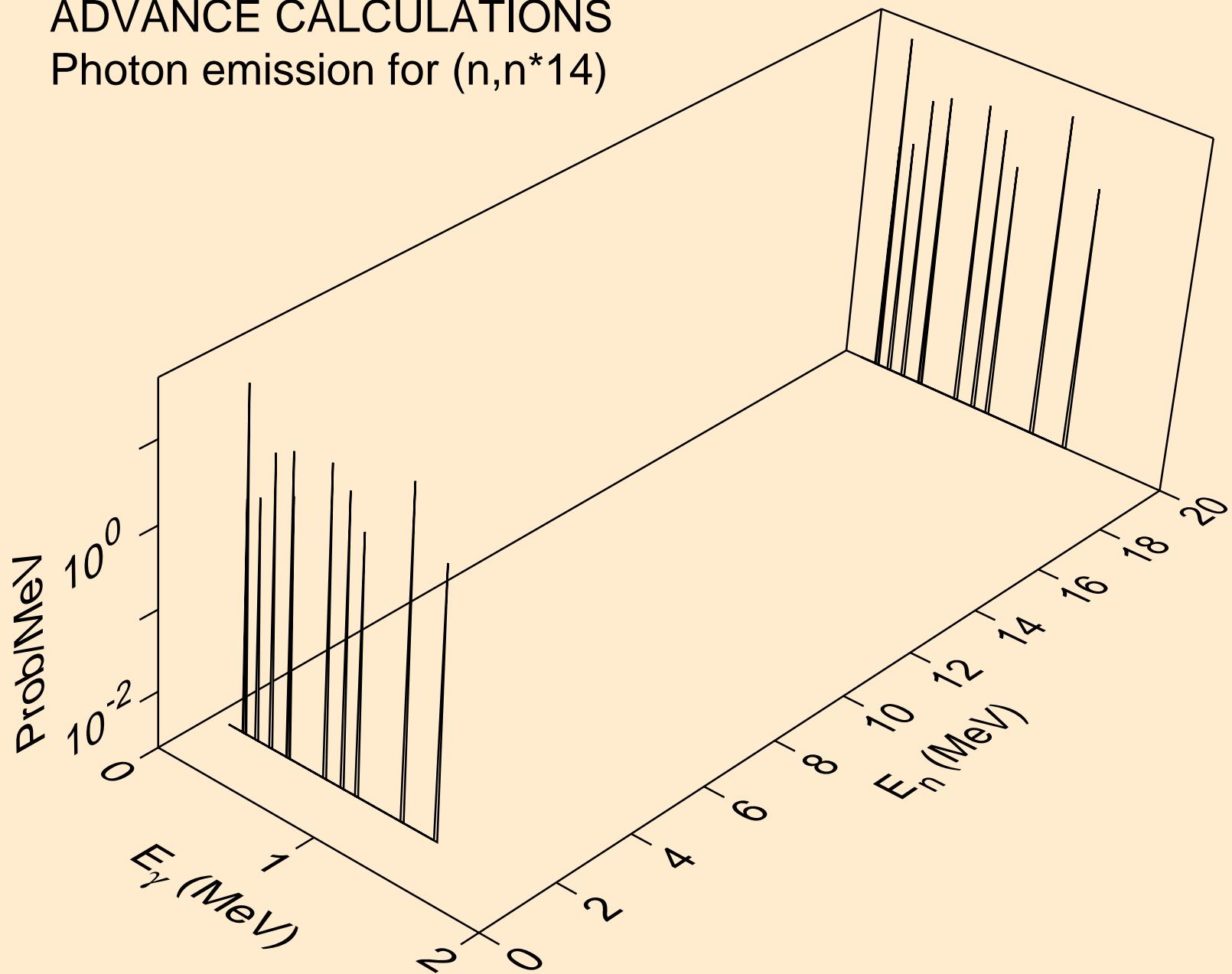
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^* 13$ )



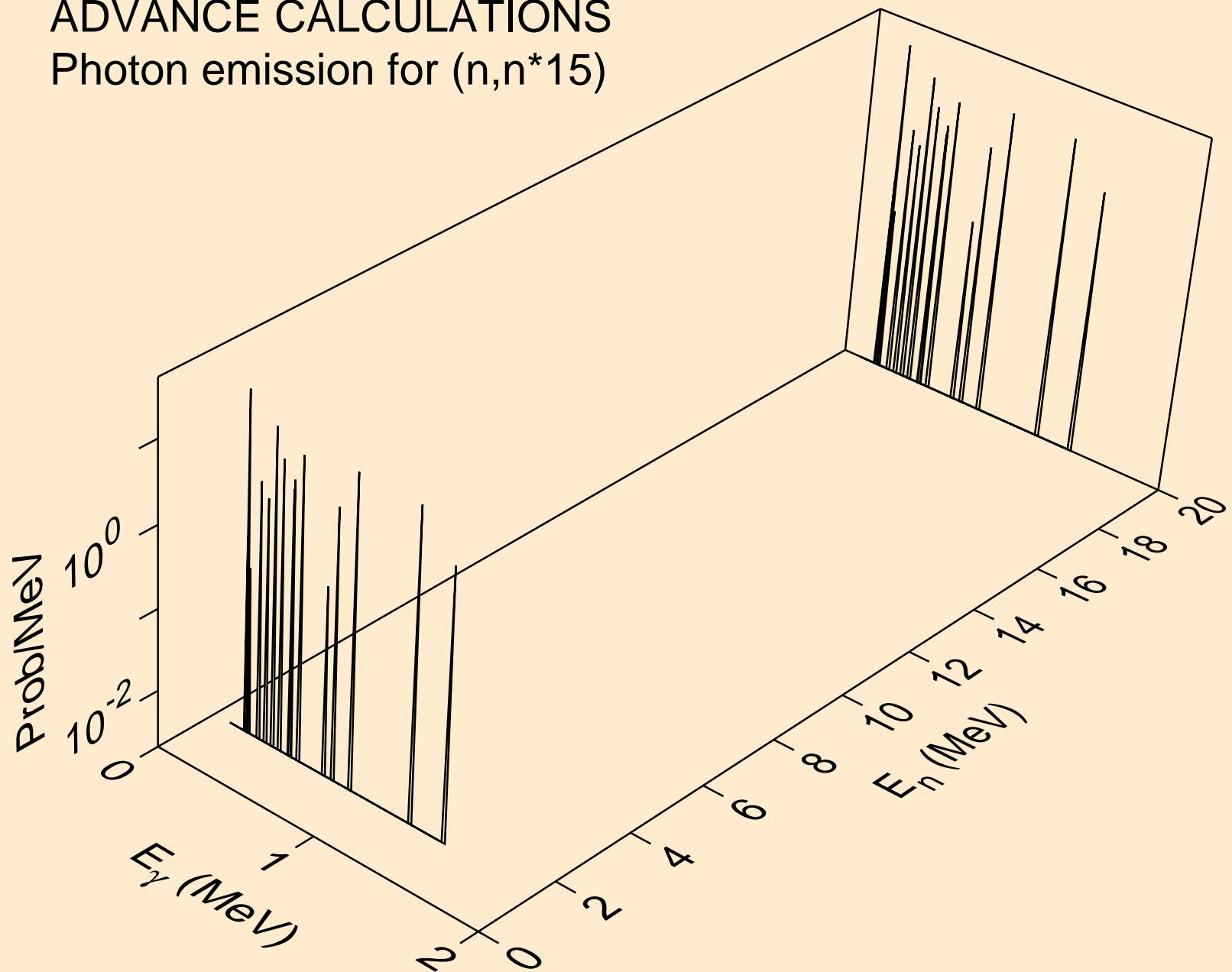
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^* 14$ )



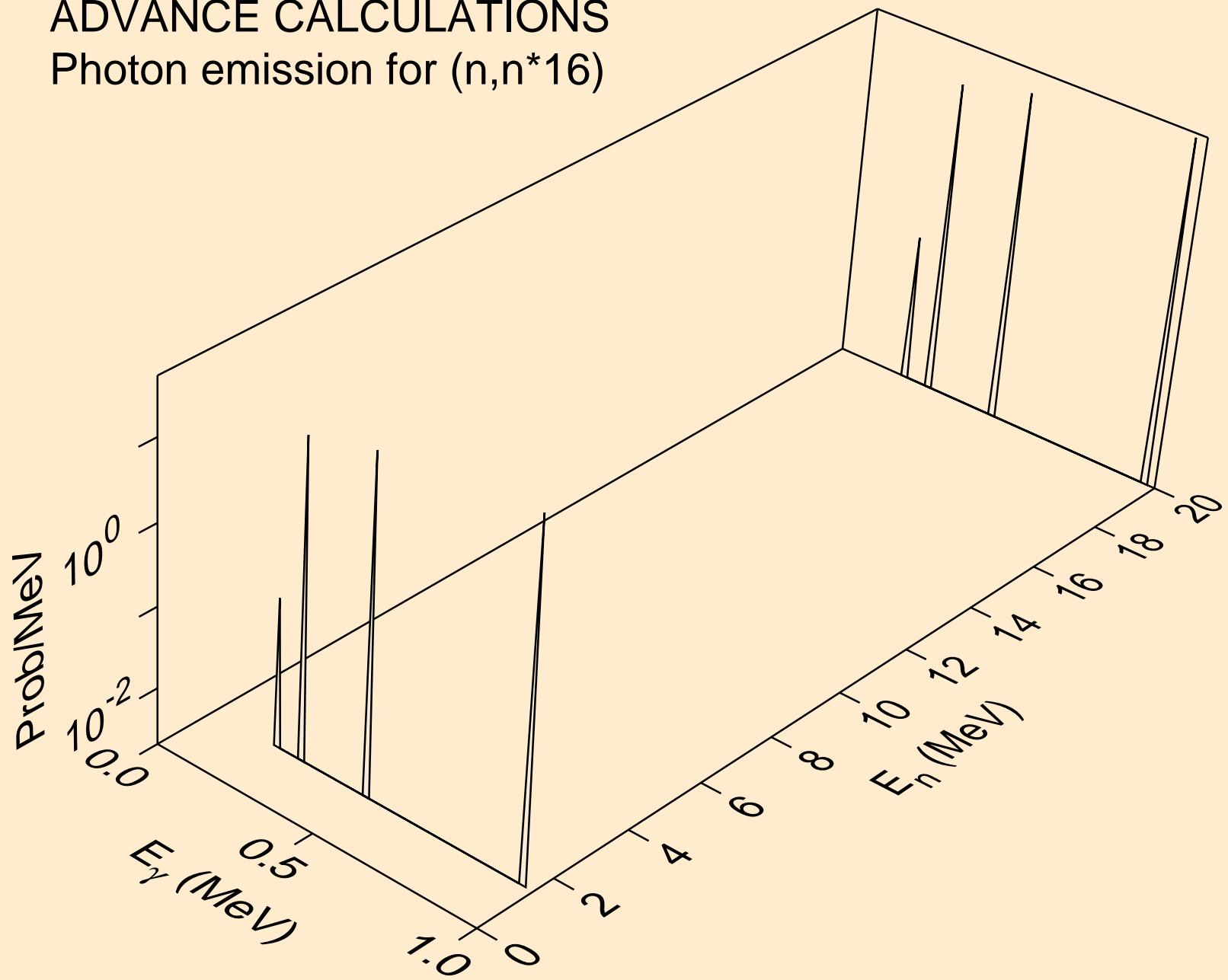
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^* 15$ )



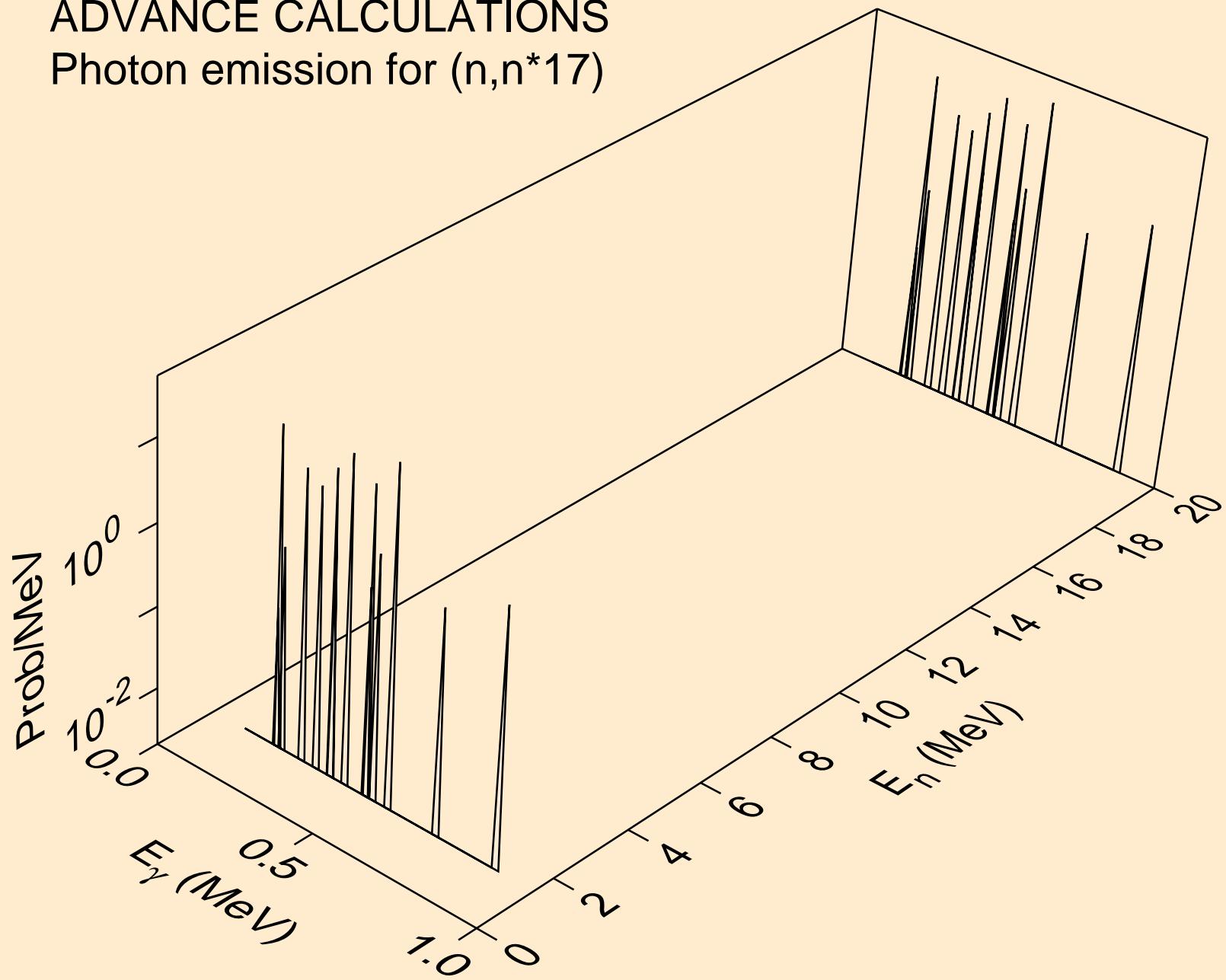
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^* 16$ )



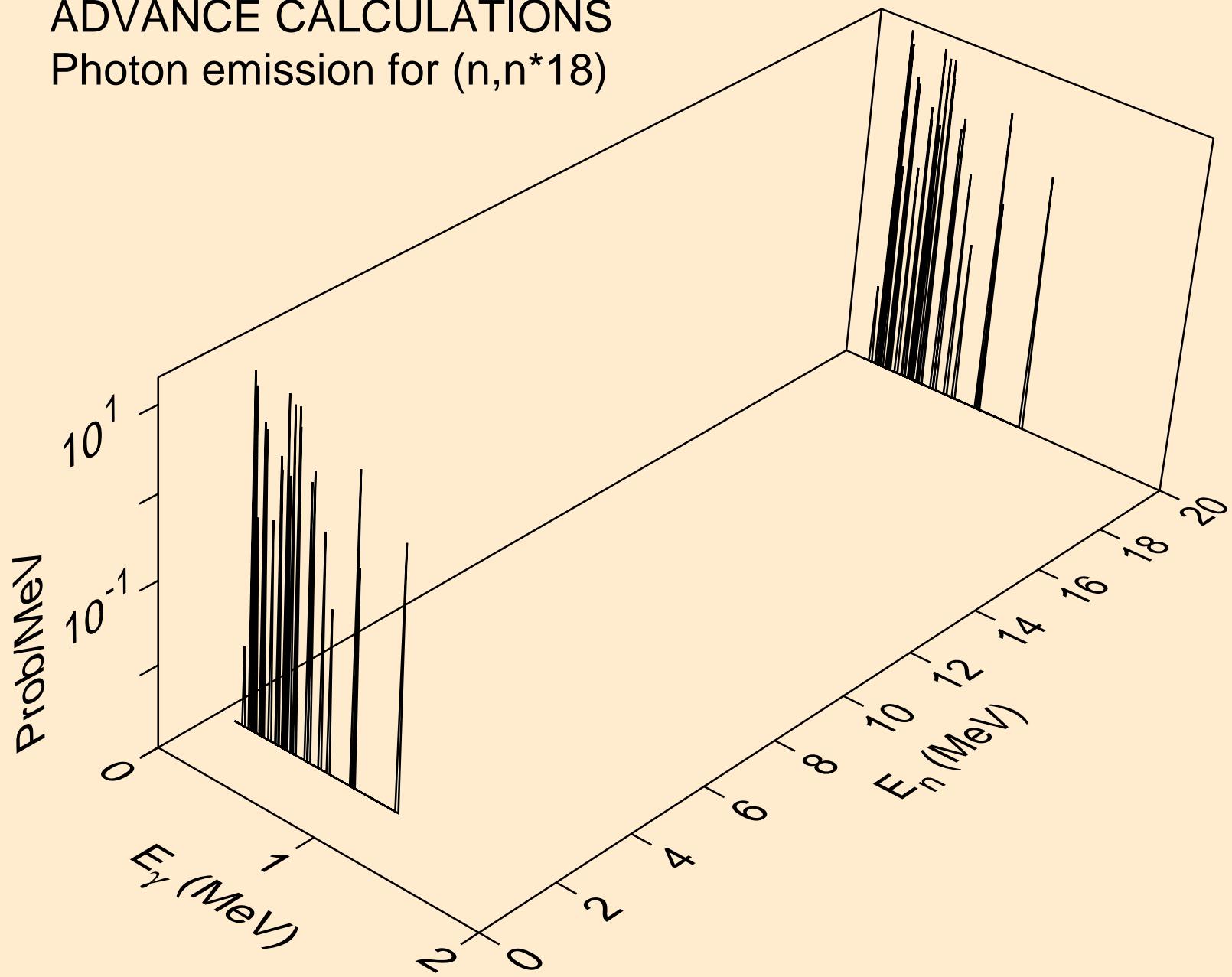
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^* 17$ )



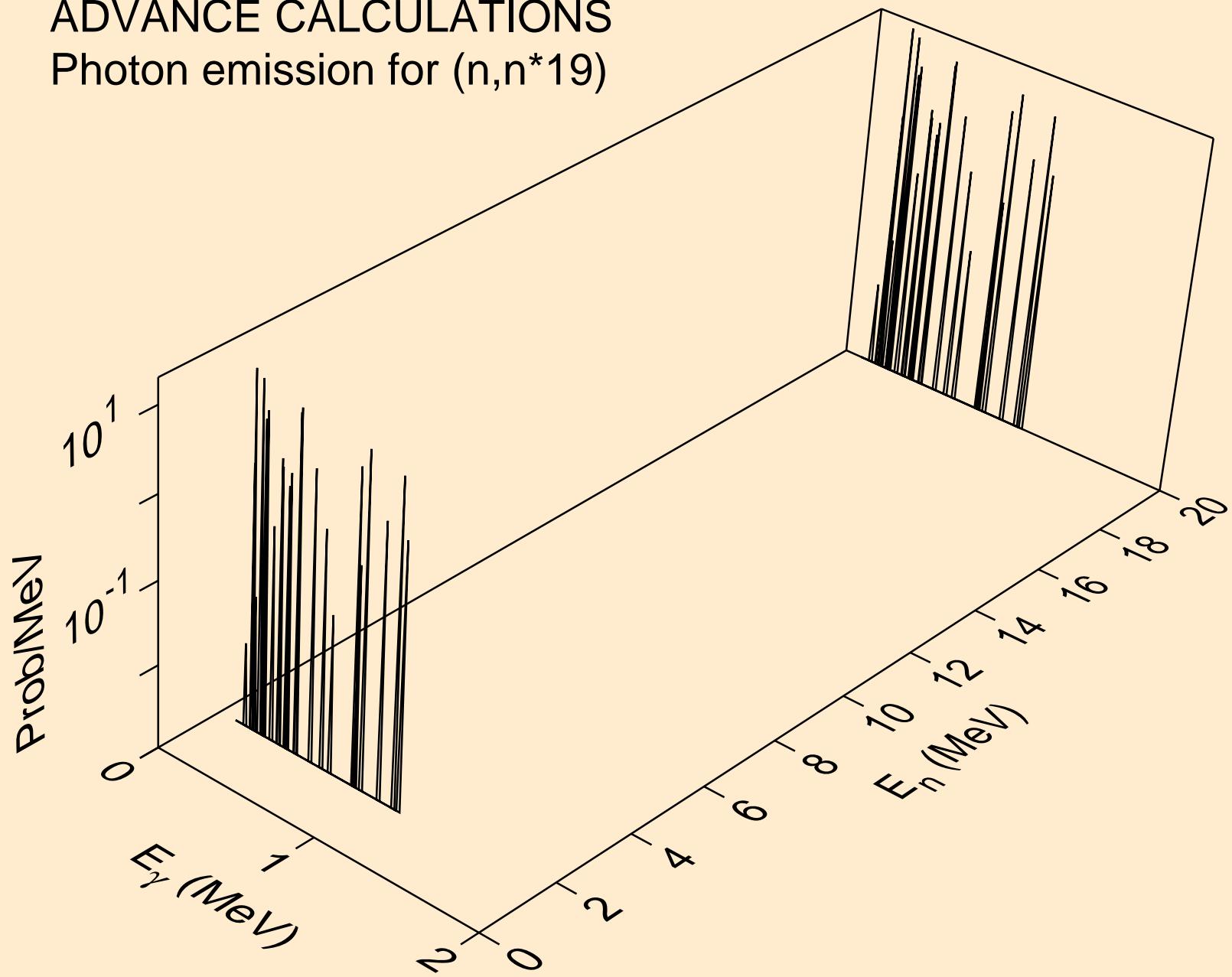
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^* 18$ )



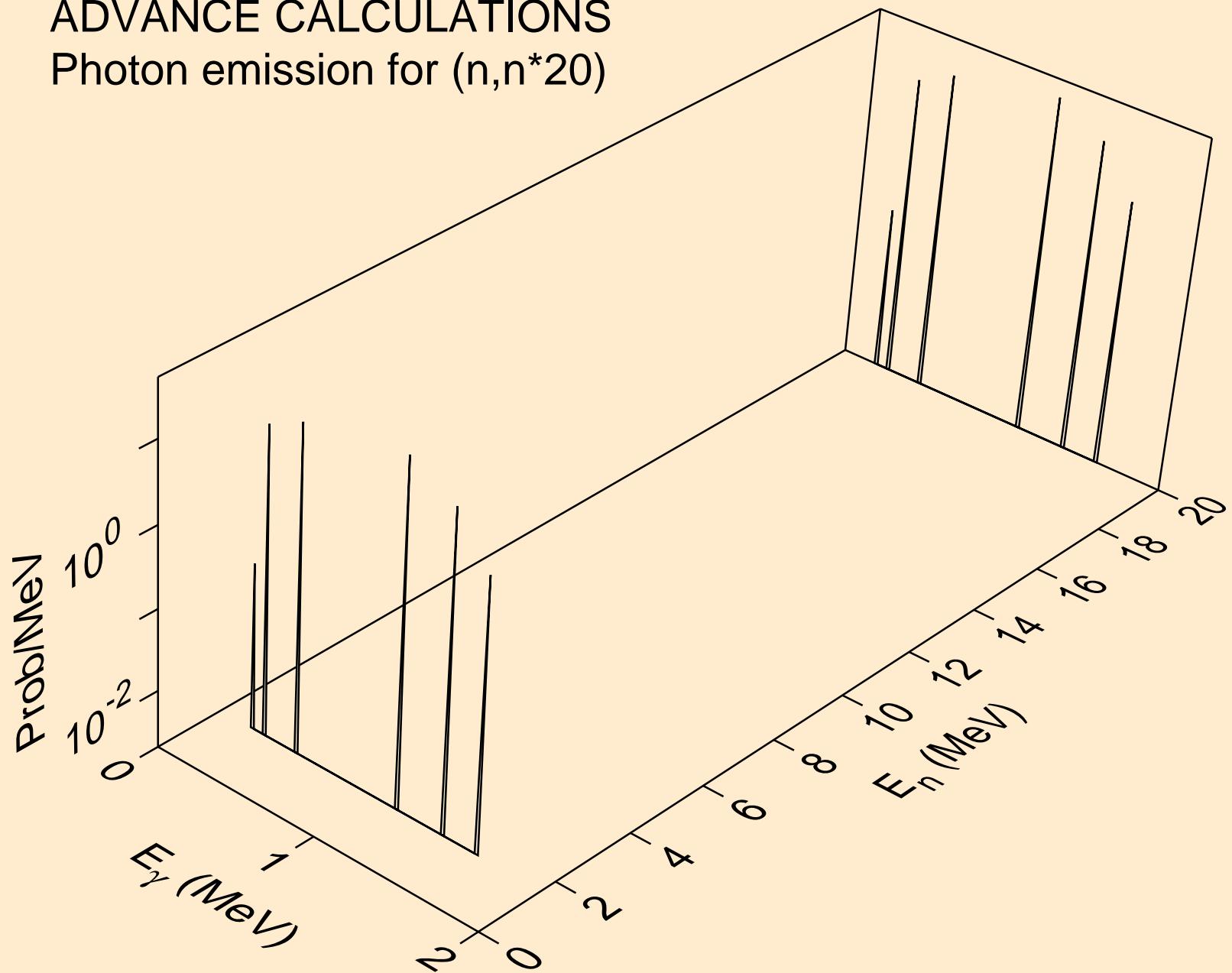
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^* 19$ )



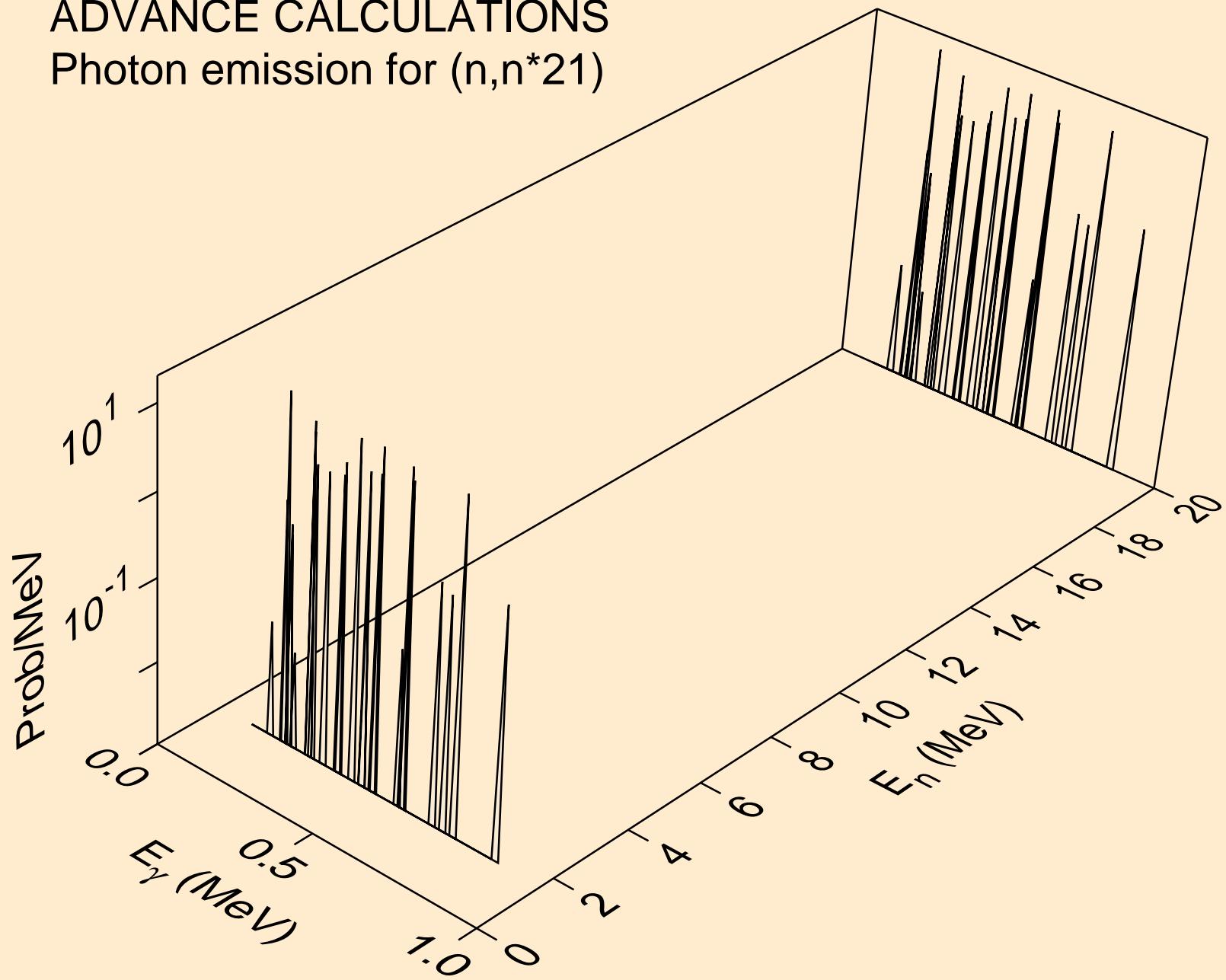
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^*$ )20



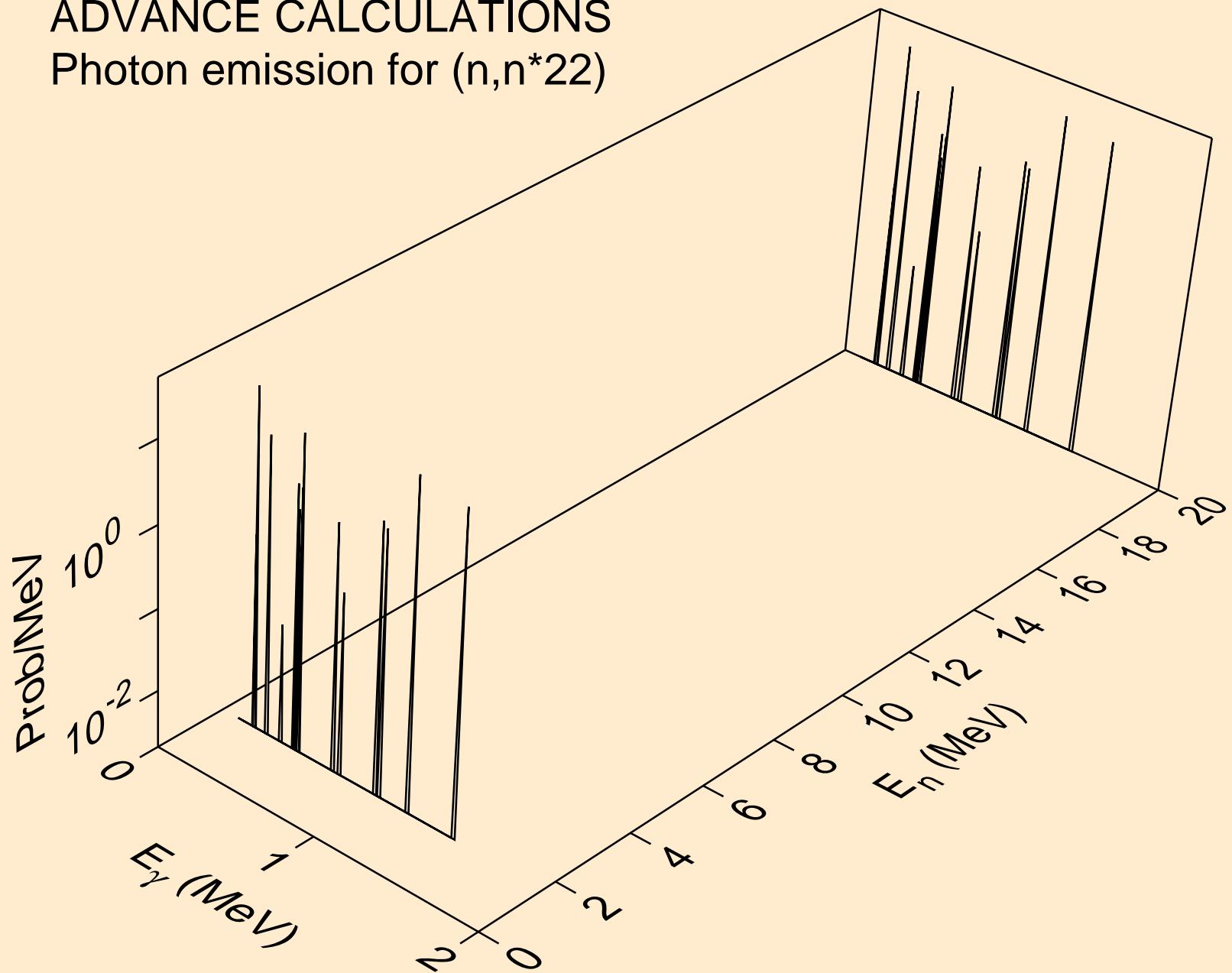
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^* 21$ )



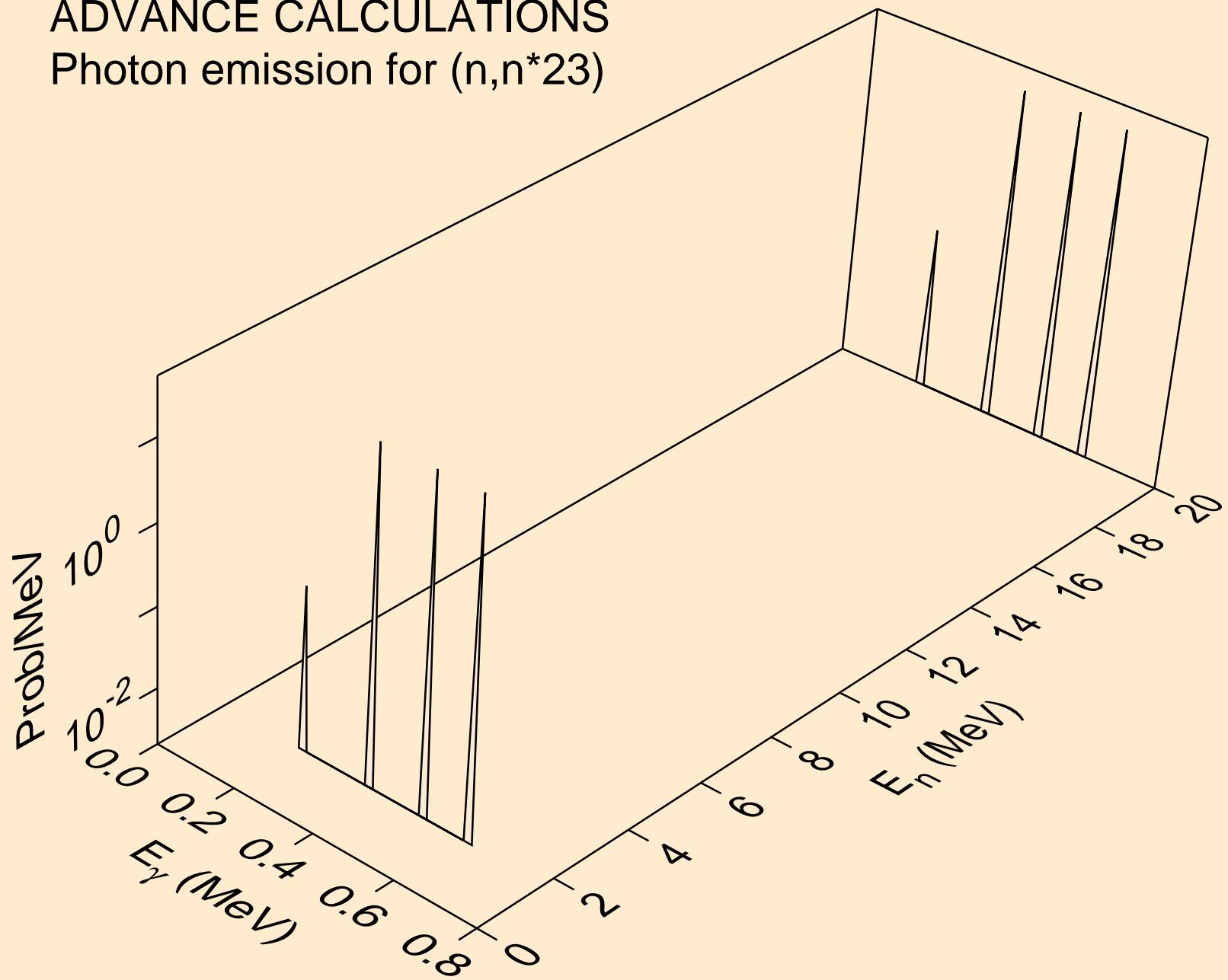
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^* 22$ )



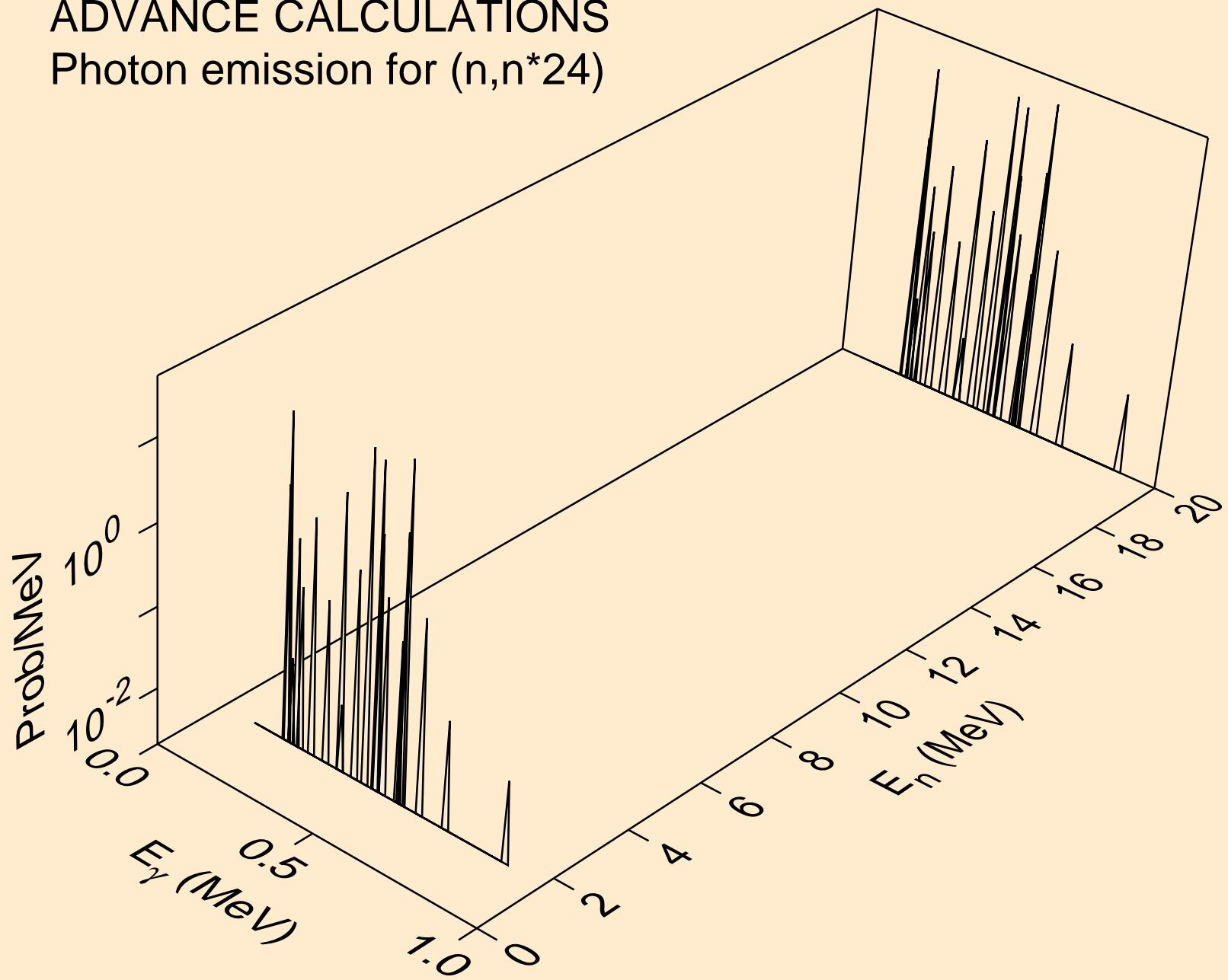
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^* 23$ )



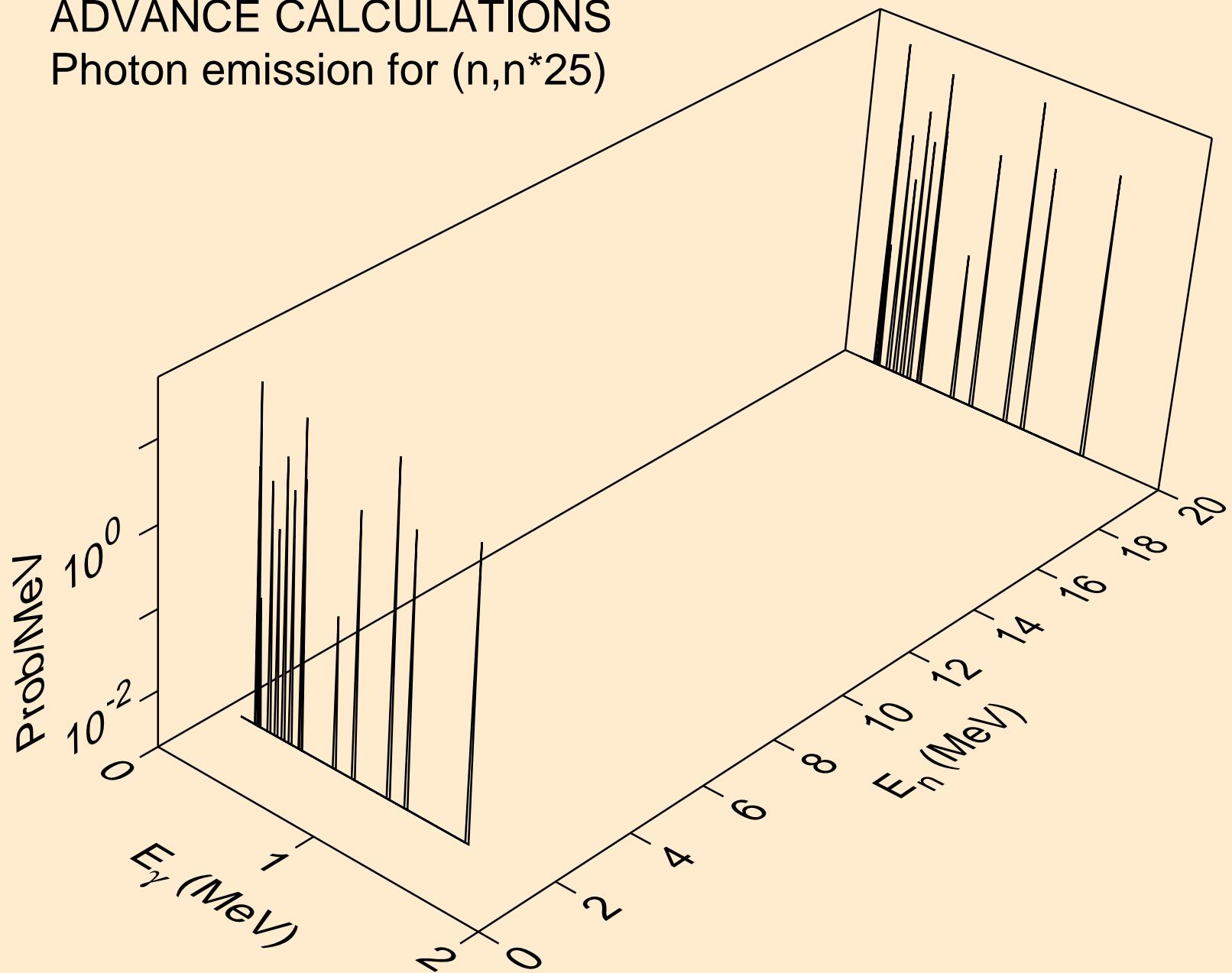
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^*$ )24



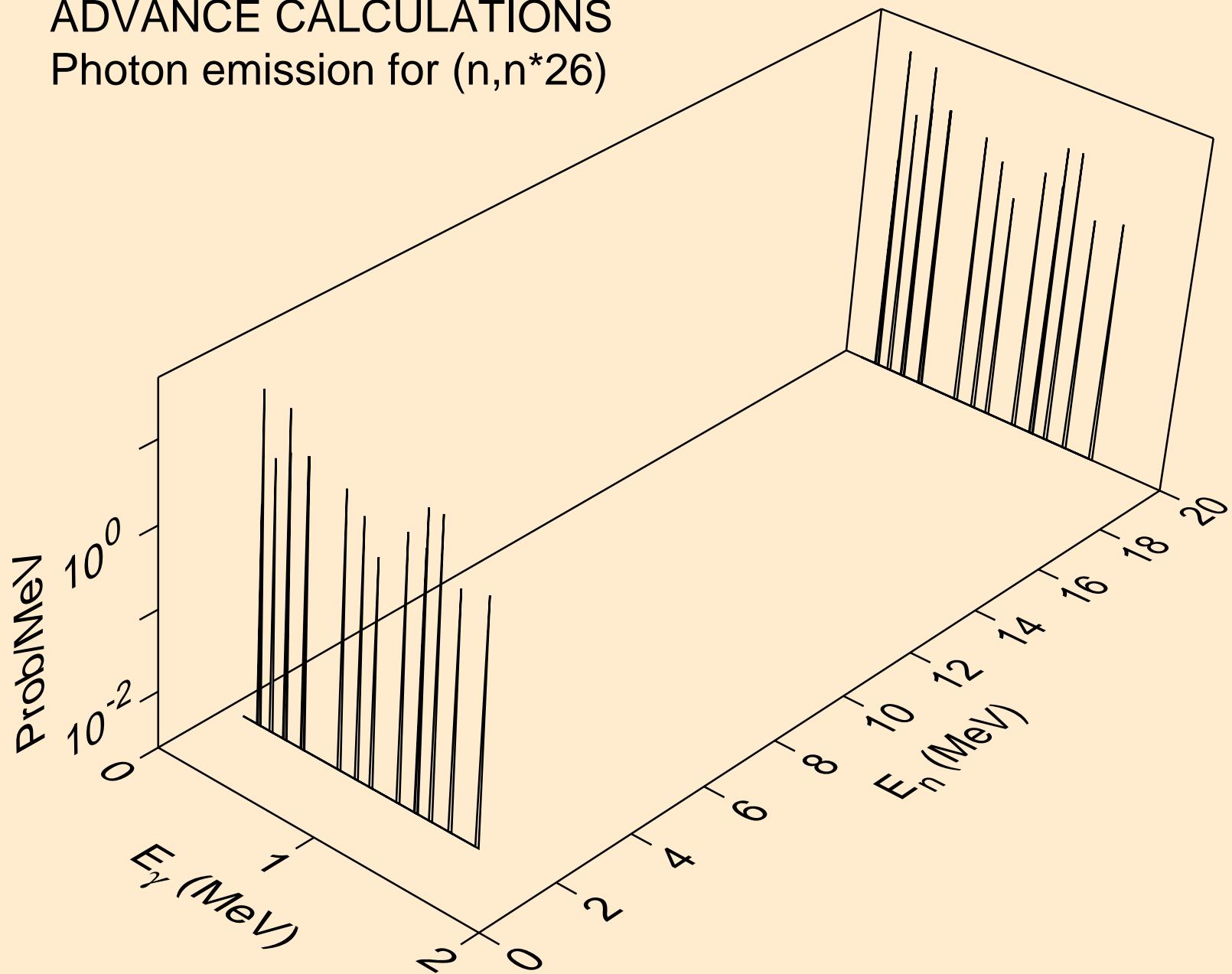
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^*$ )<sup>25</sup>



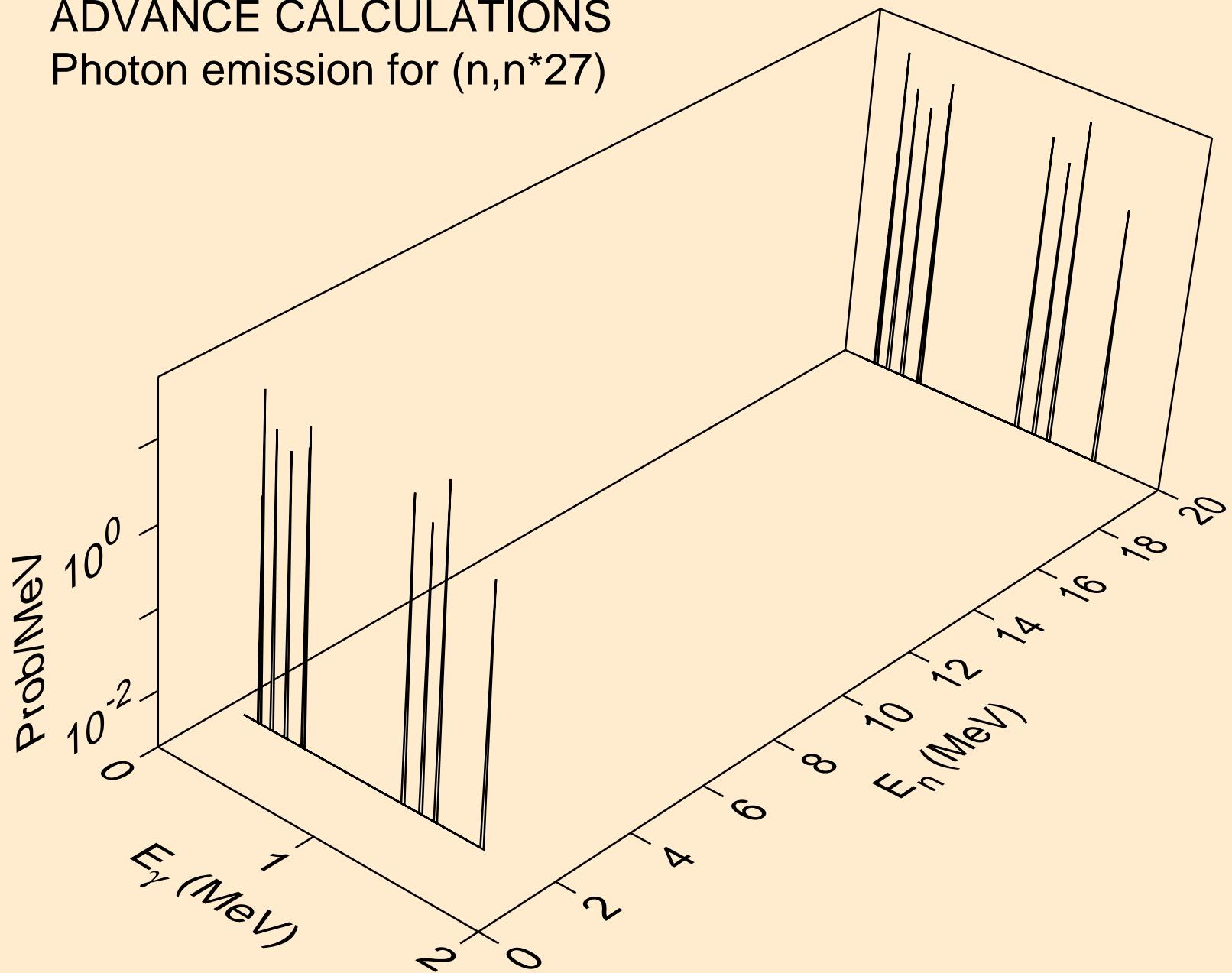
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^*$ )26



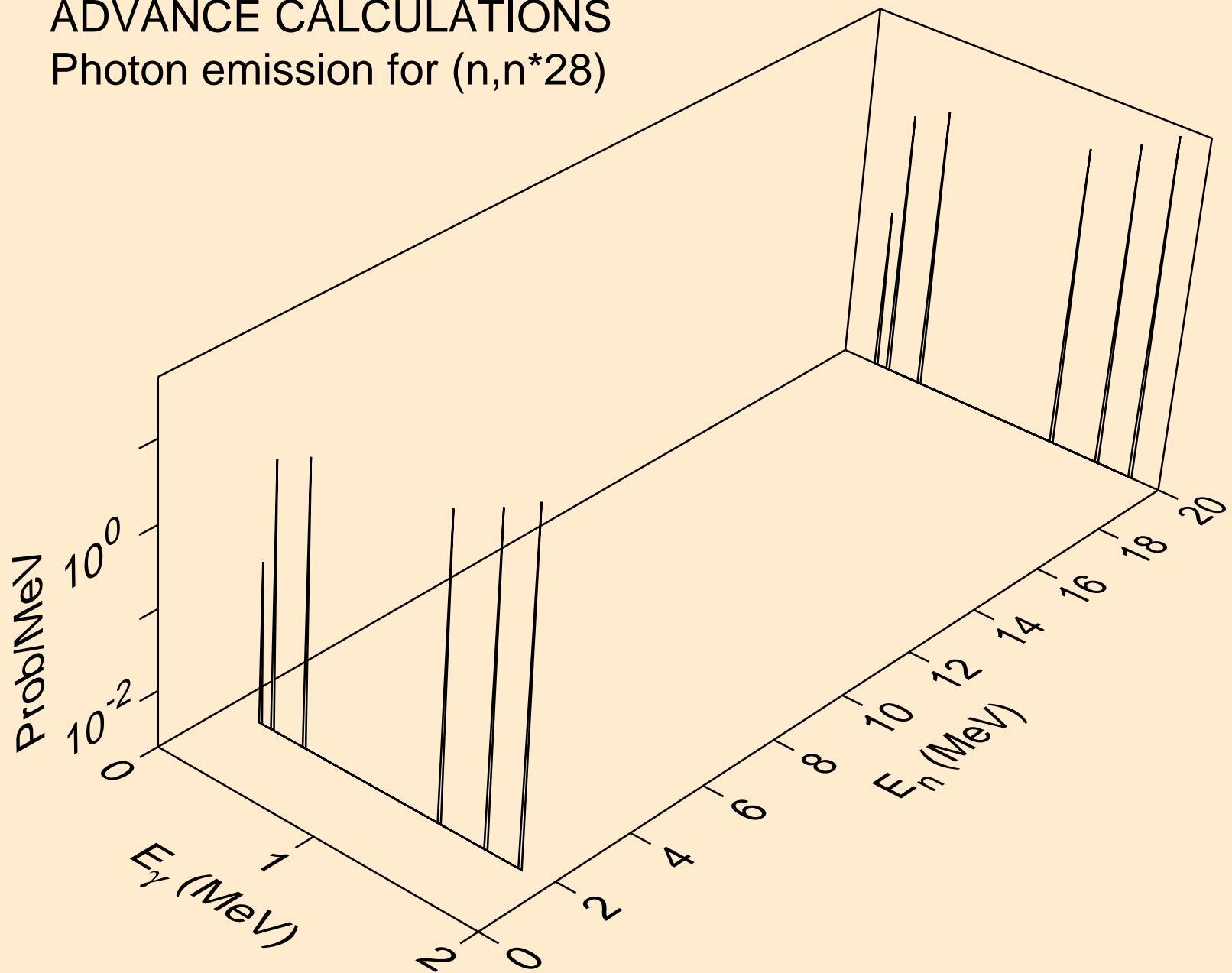
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^* 27$ )



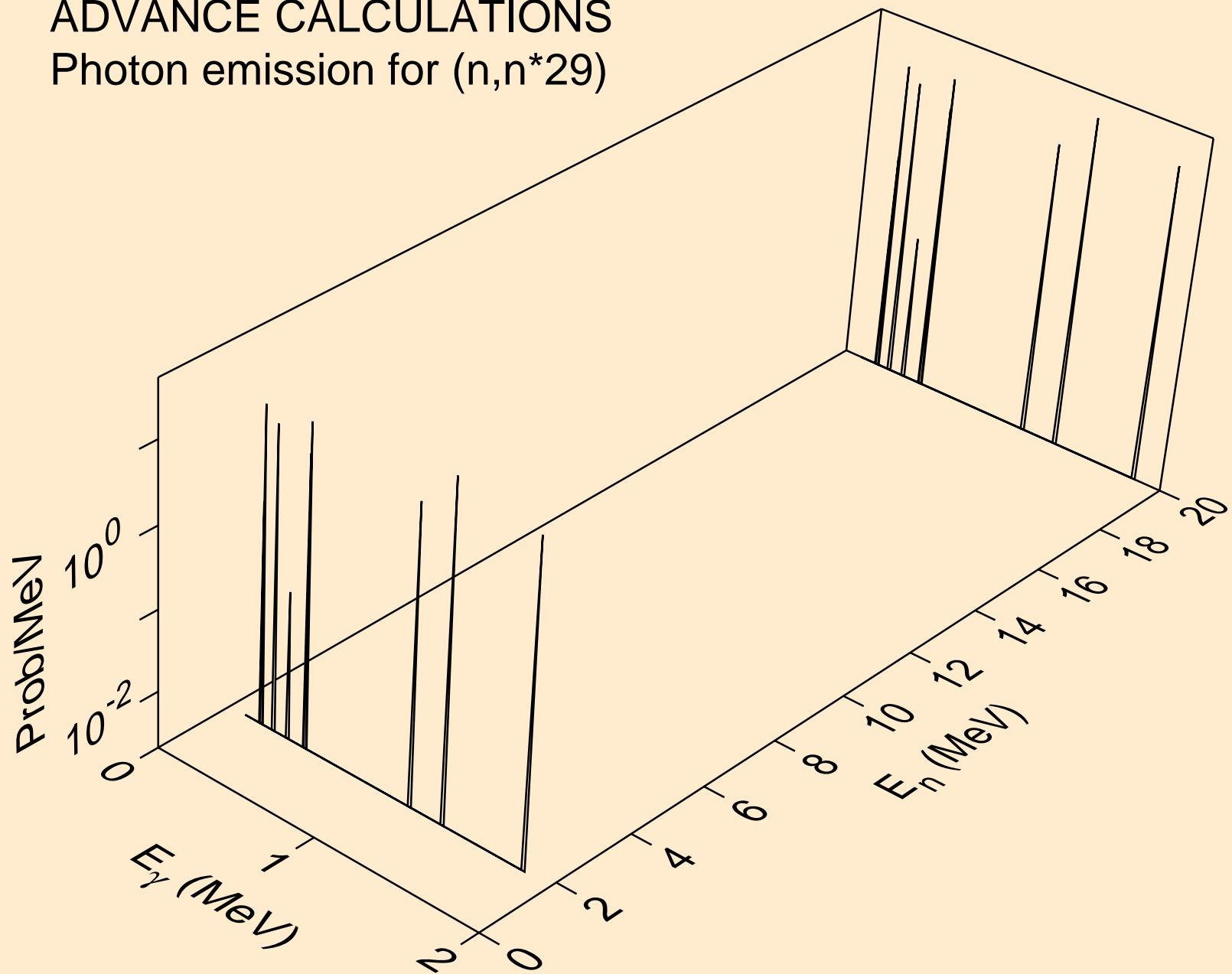
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^*$ )<sup>28</sup>



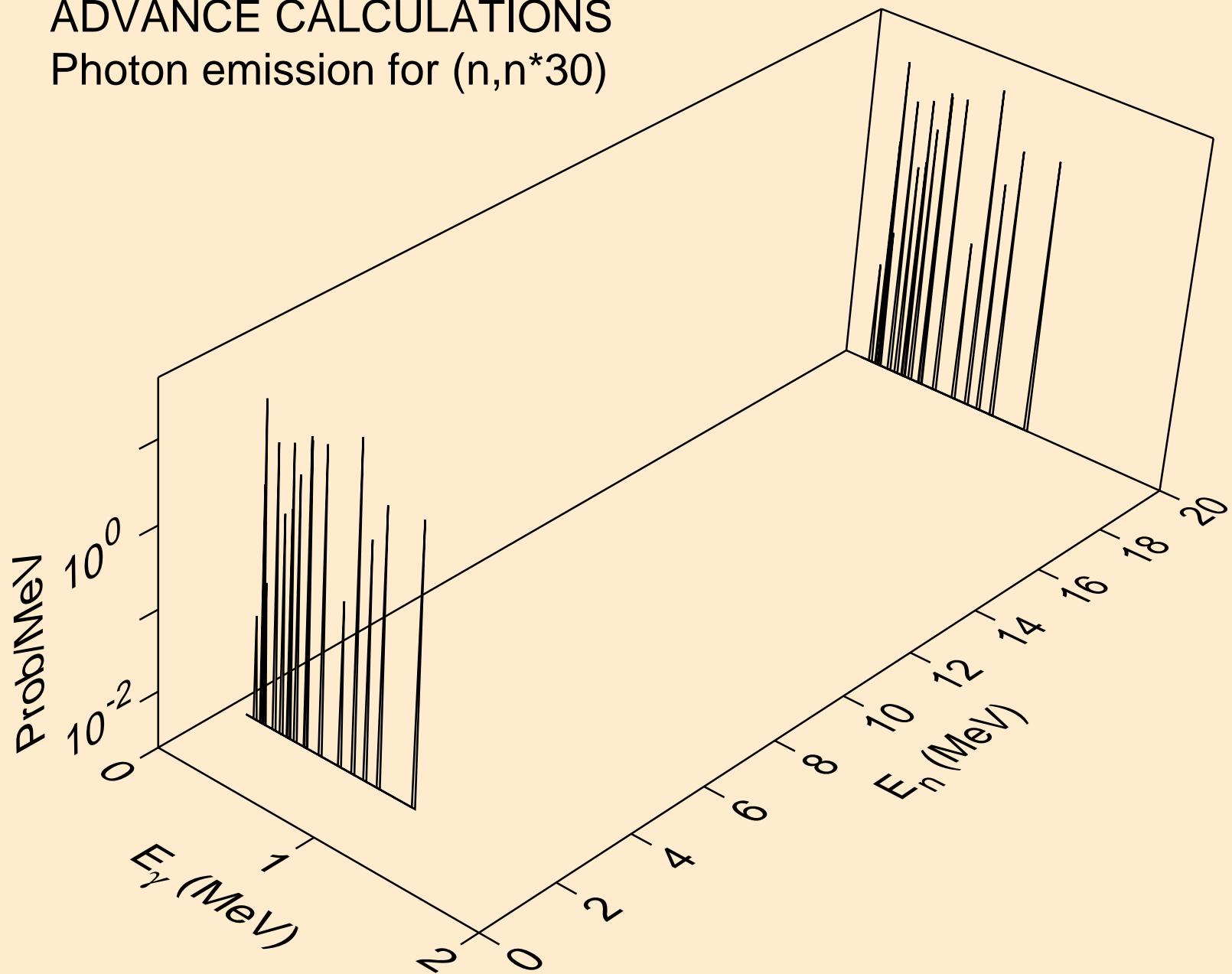
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^* 29$ )



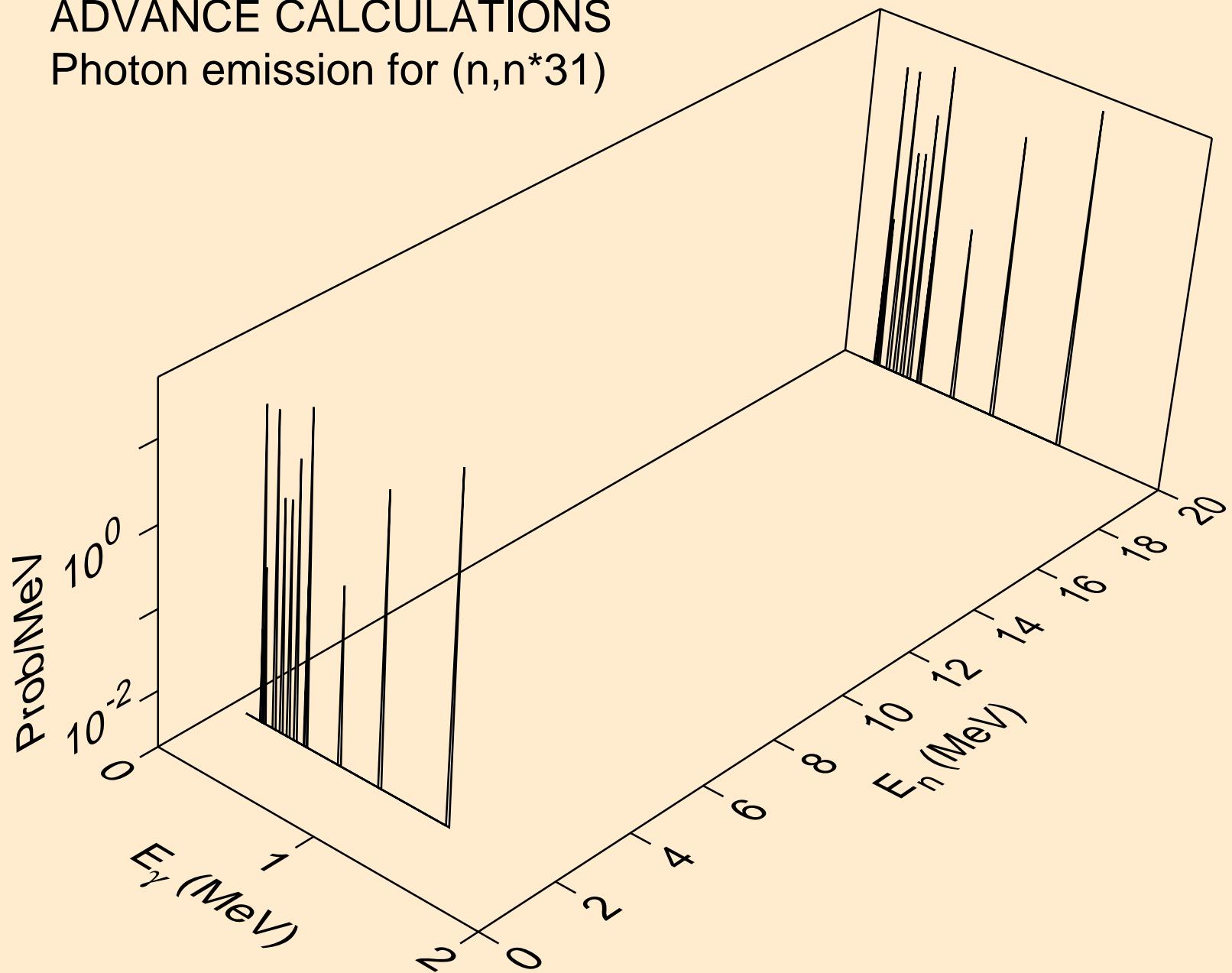
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^*$ )30



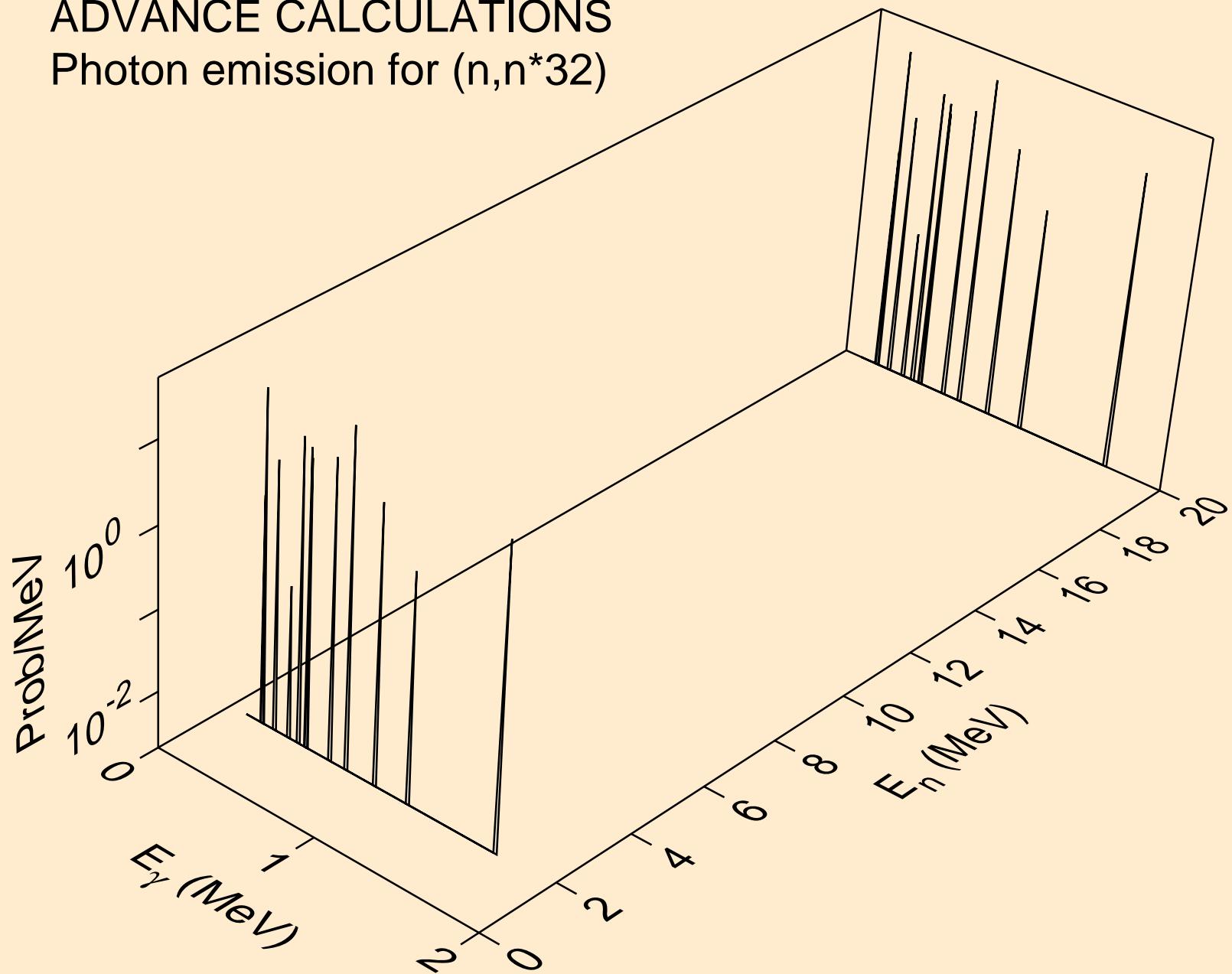
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^*31$ )



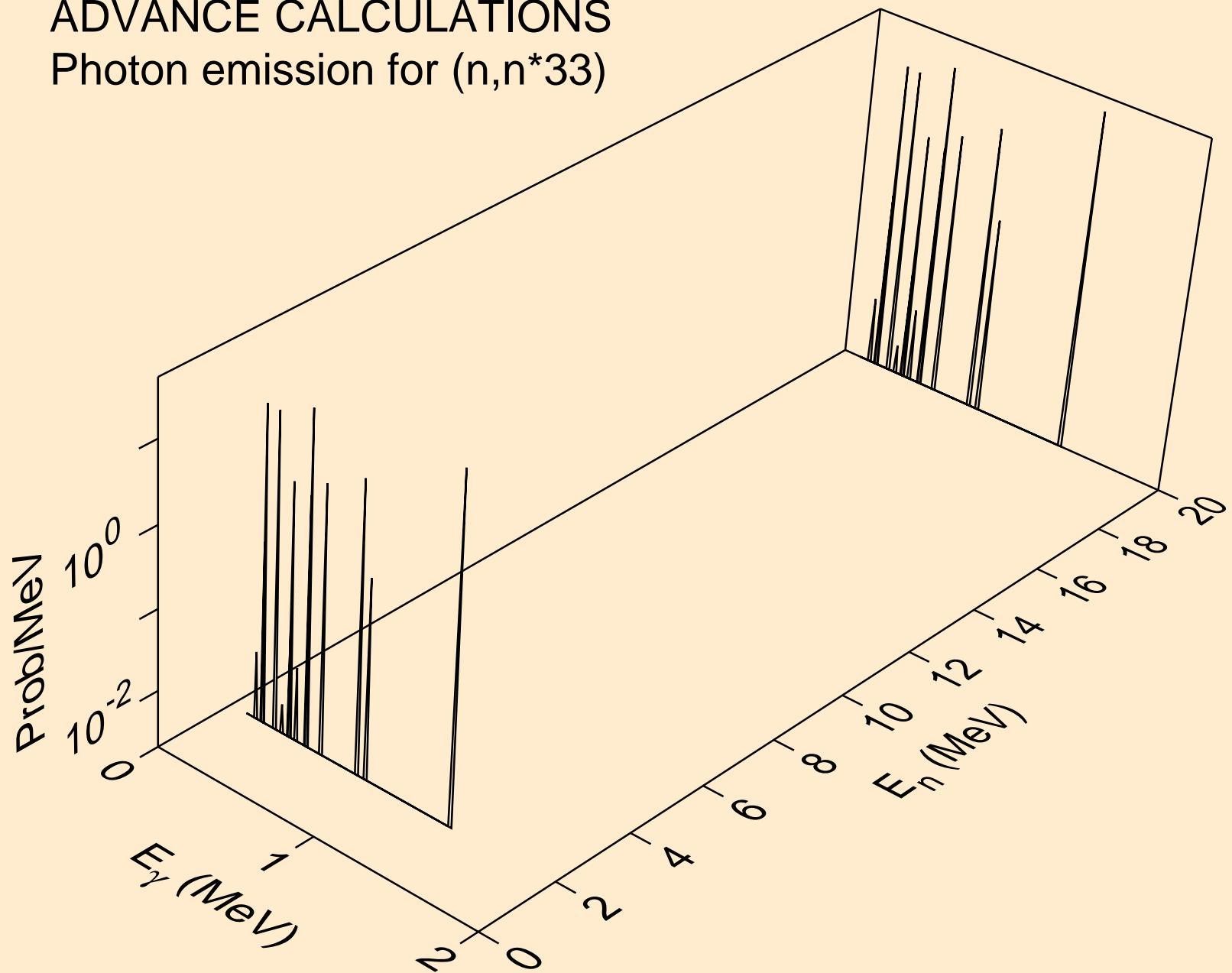
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^*32$ )



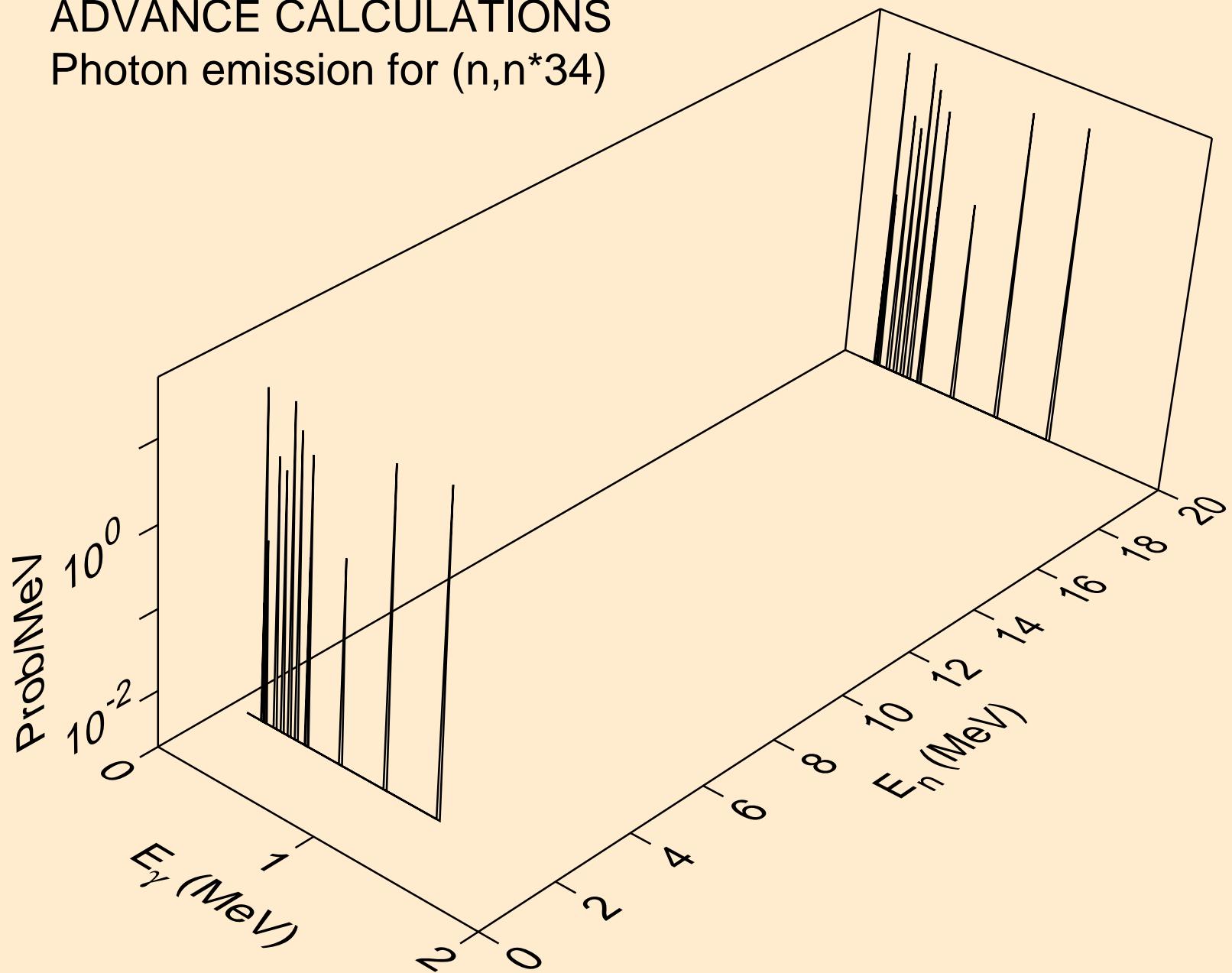
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^*33$ )



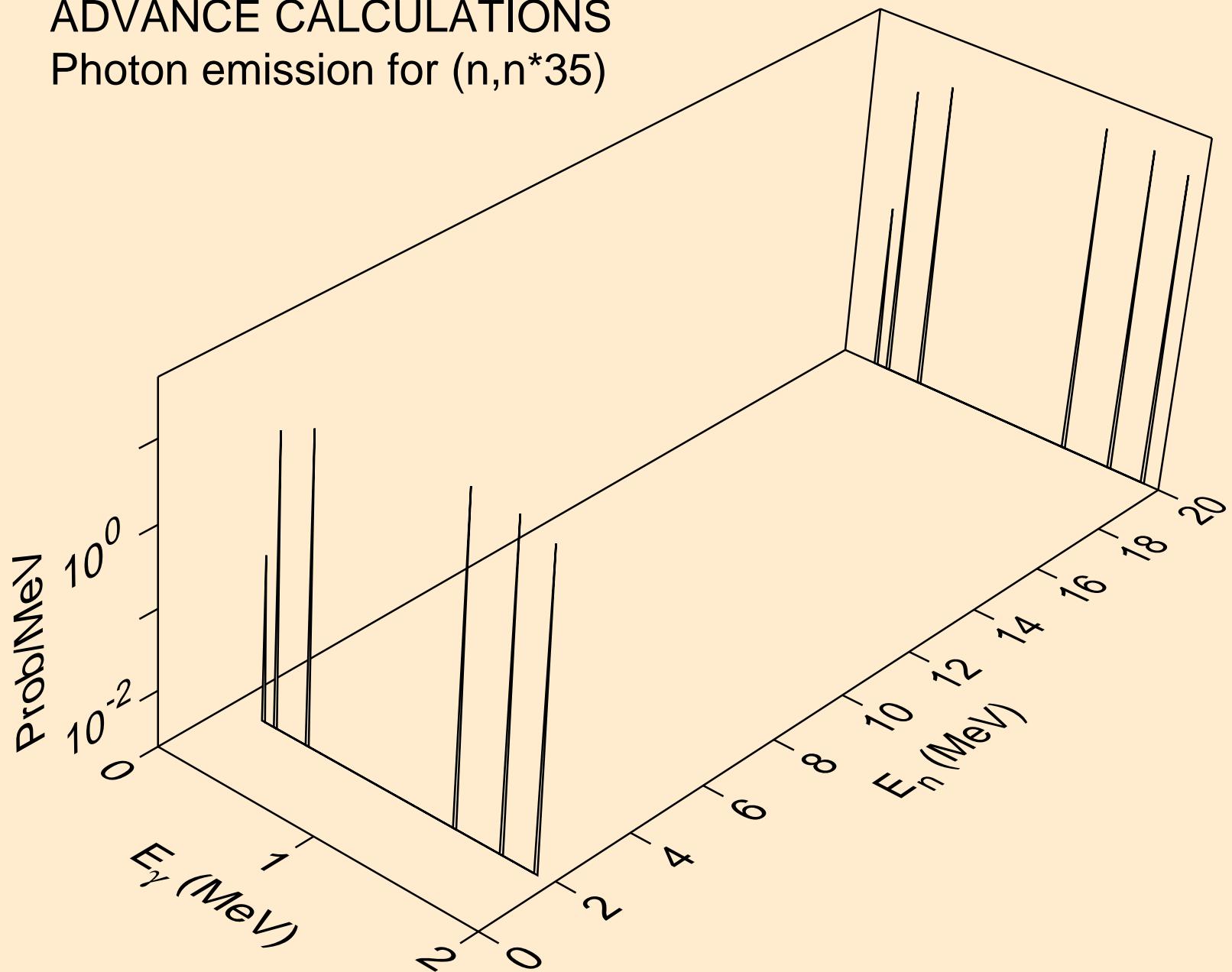
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^*34$ )



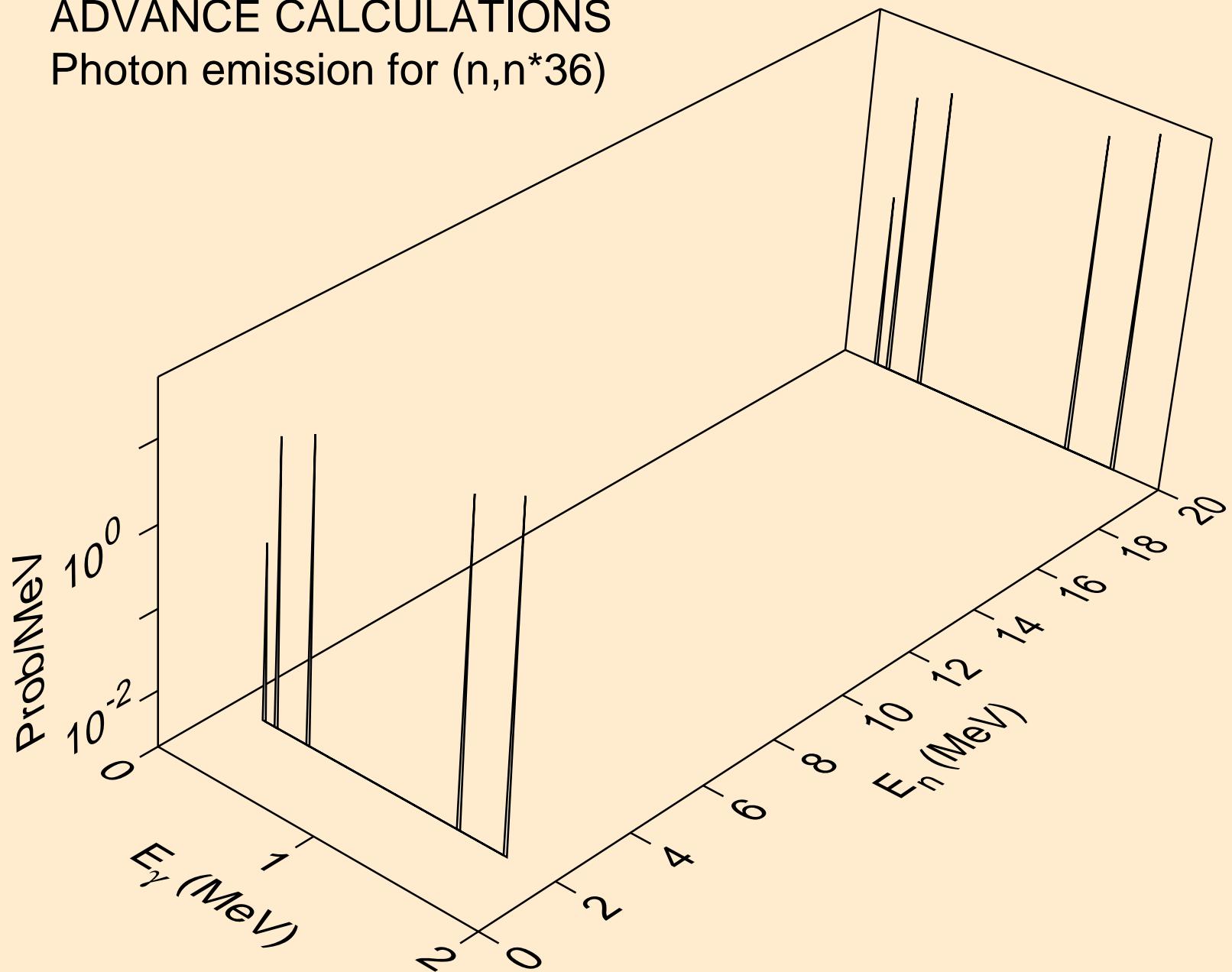
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^*$ )35



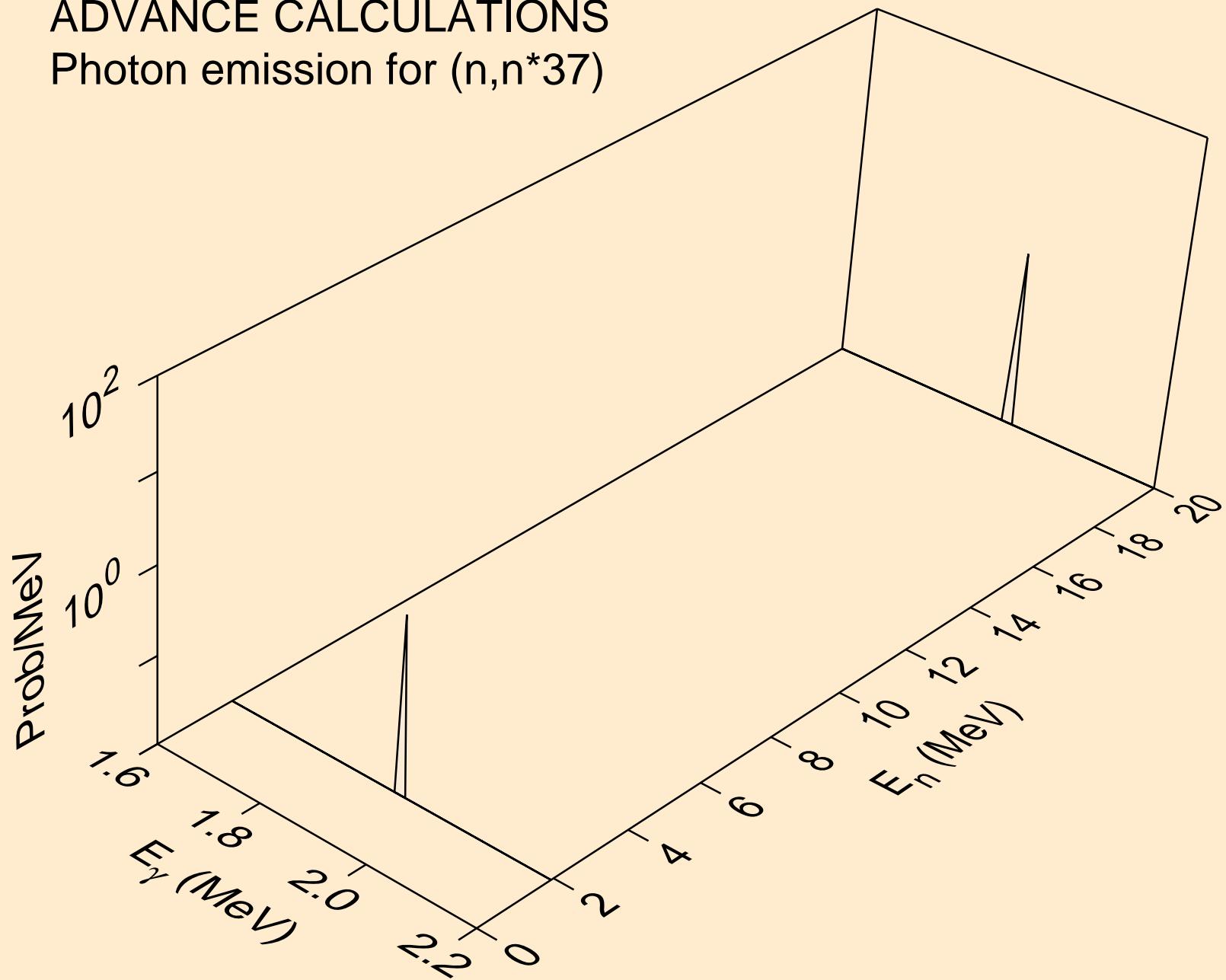
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^*36$ )



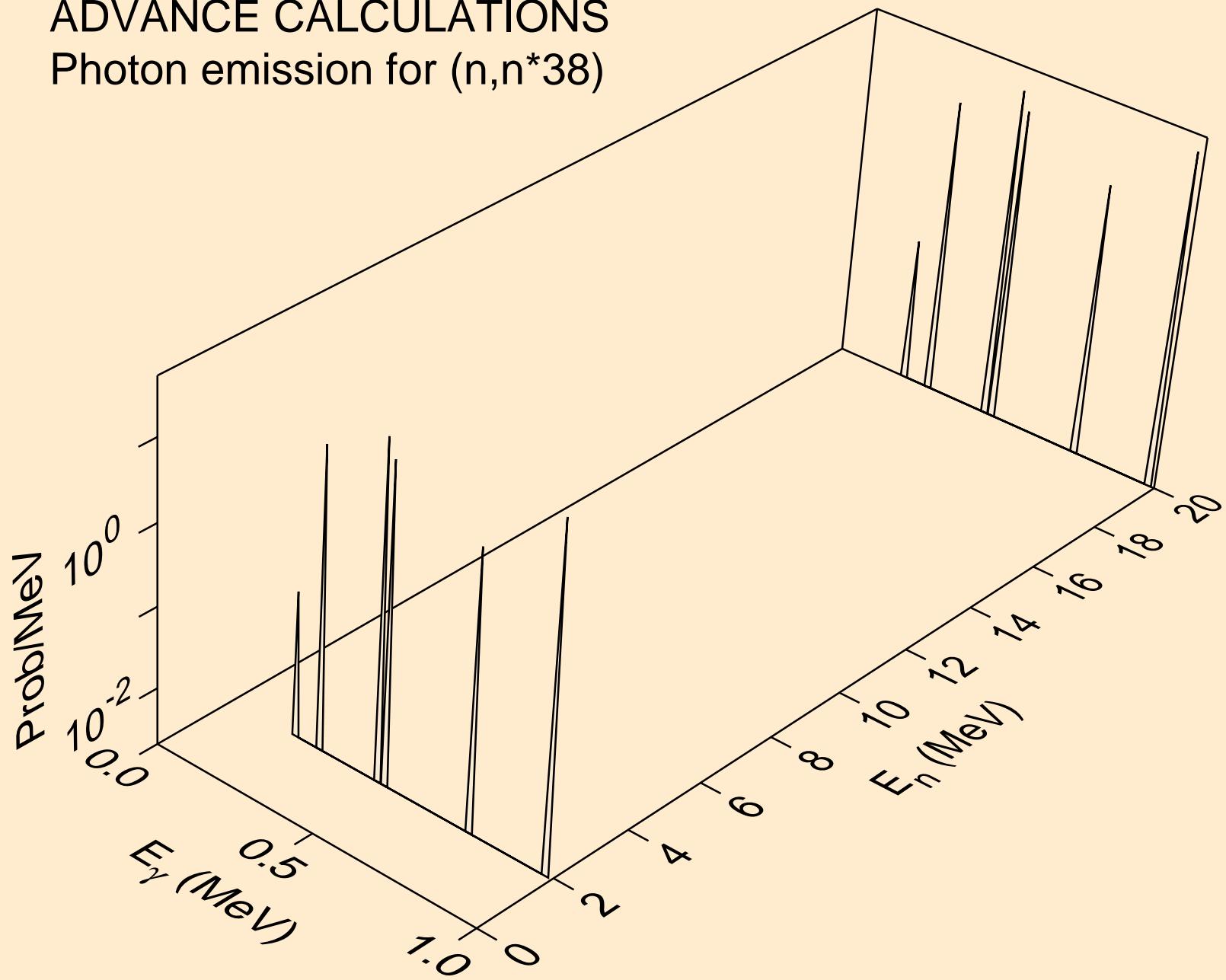
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^*37$ )



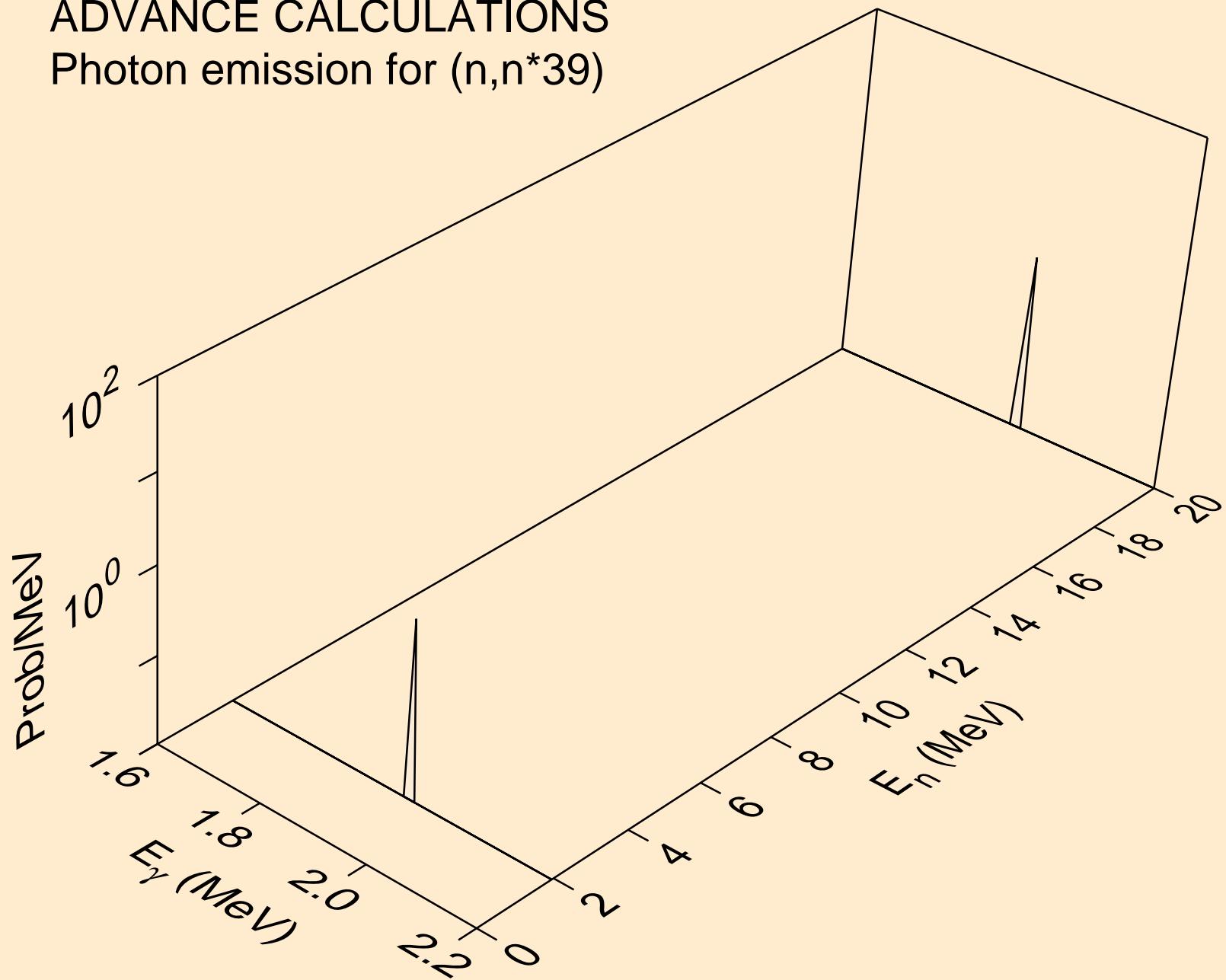
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^*38$ )



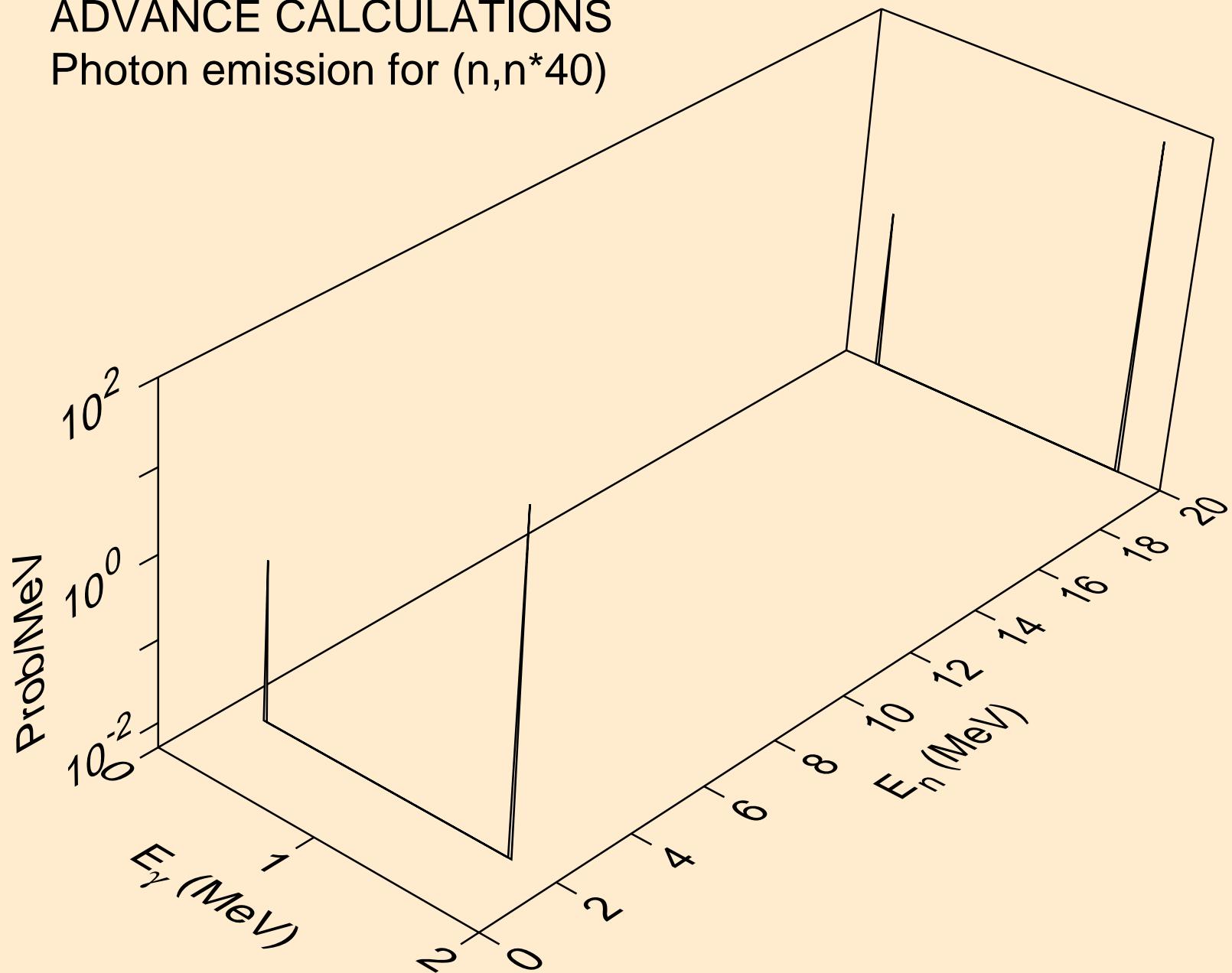
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^*39$ )



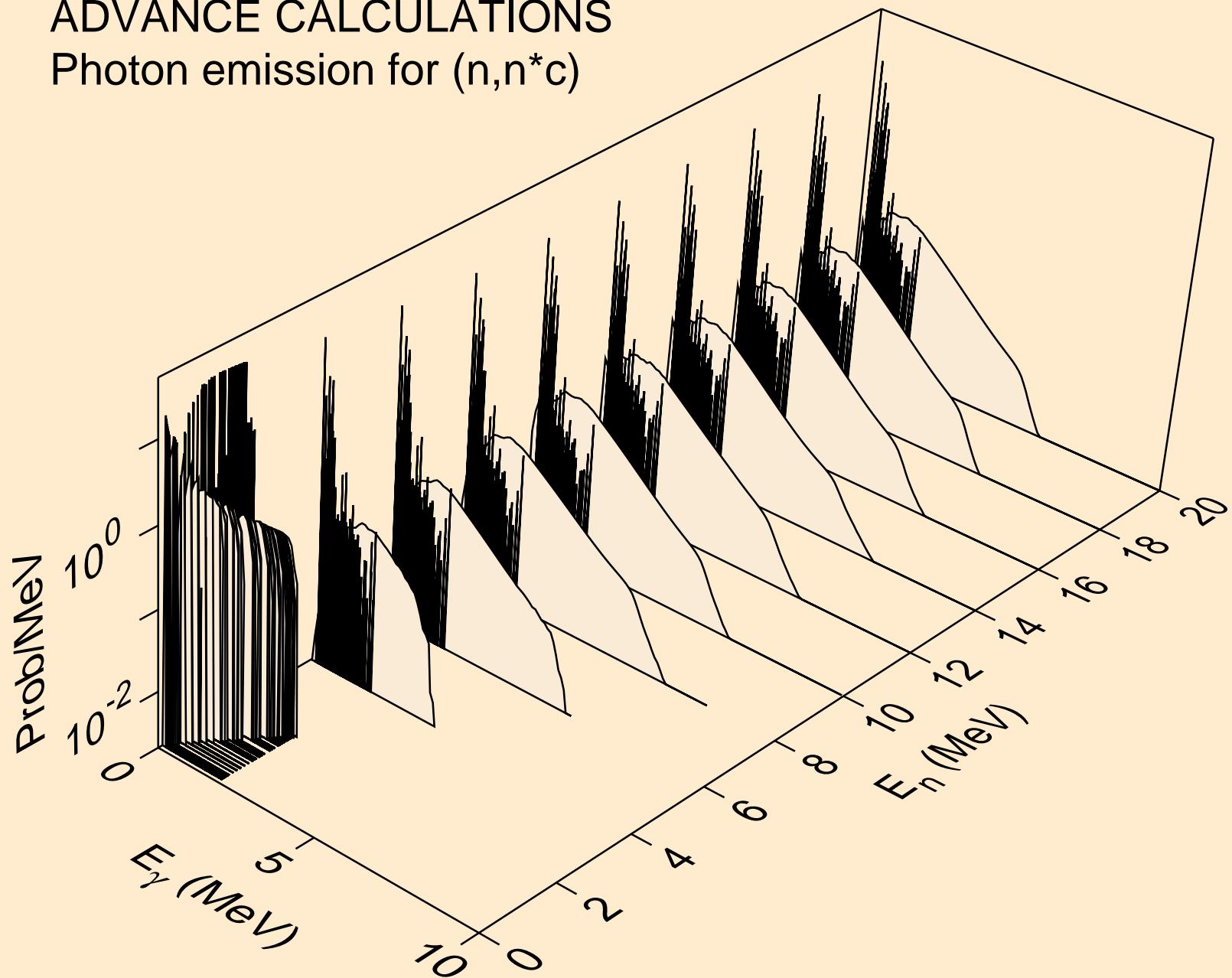
# ADVANCE CALCULATIONS

## Photon emission for ( $n, n^* 40$ )



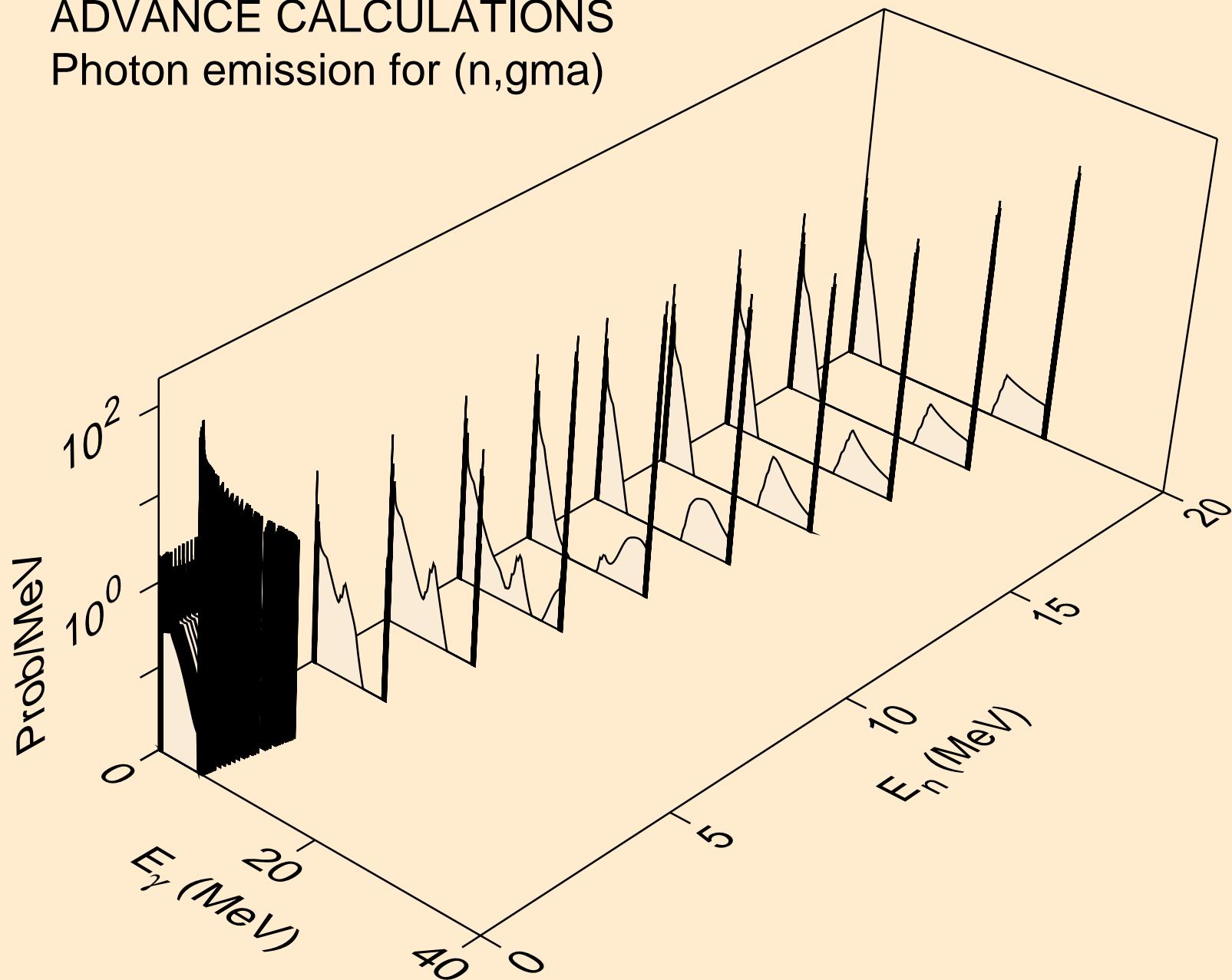
# ADVANCE CALCULATIONS

## Photon emission for $(n,n^*c)$



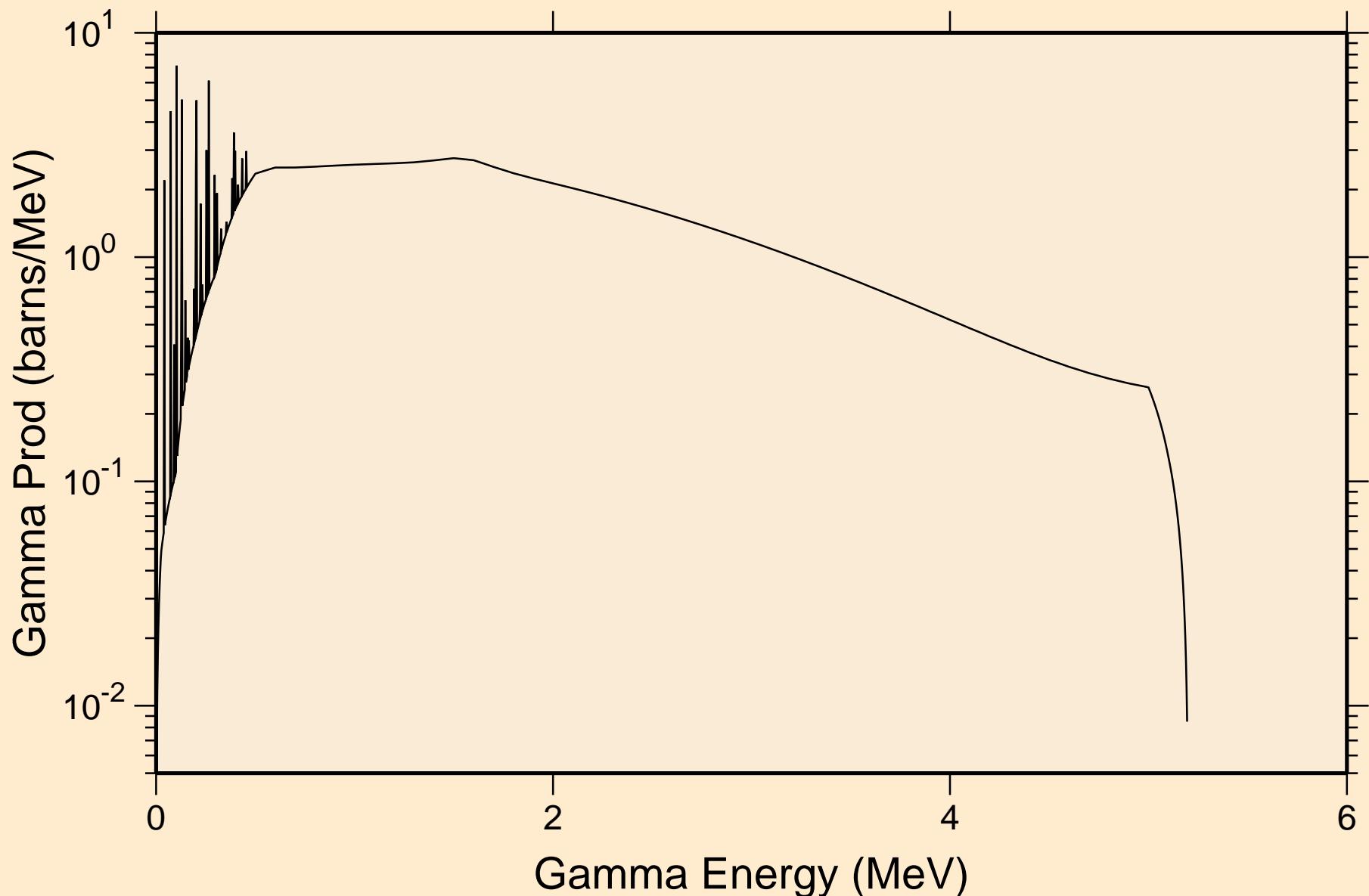
# ADVANCE CALCULATIONS

## Photon emission for (n,gma)

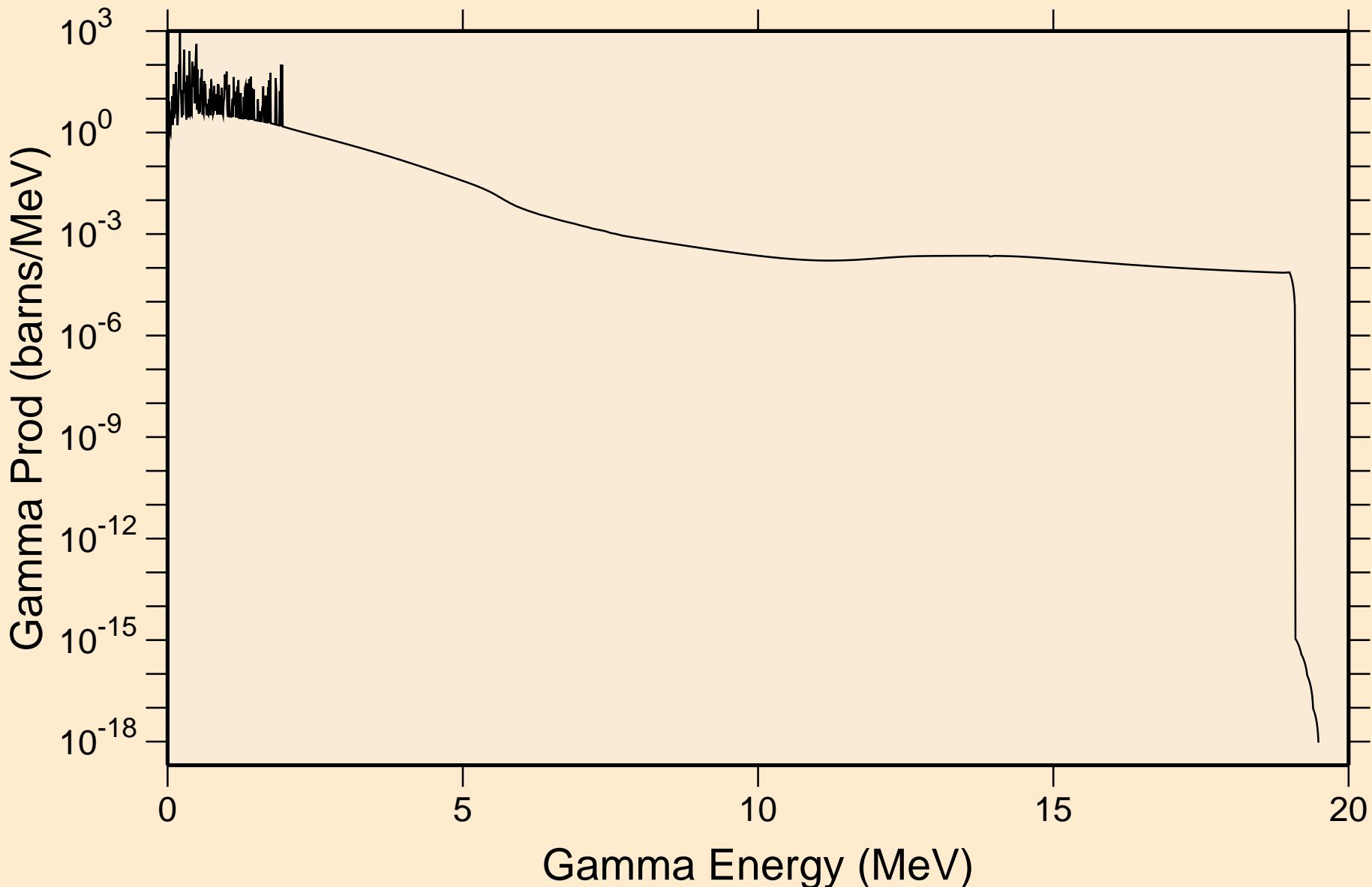


# ADVANCE CALCULATIONS

## thermal capture photon spectrum

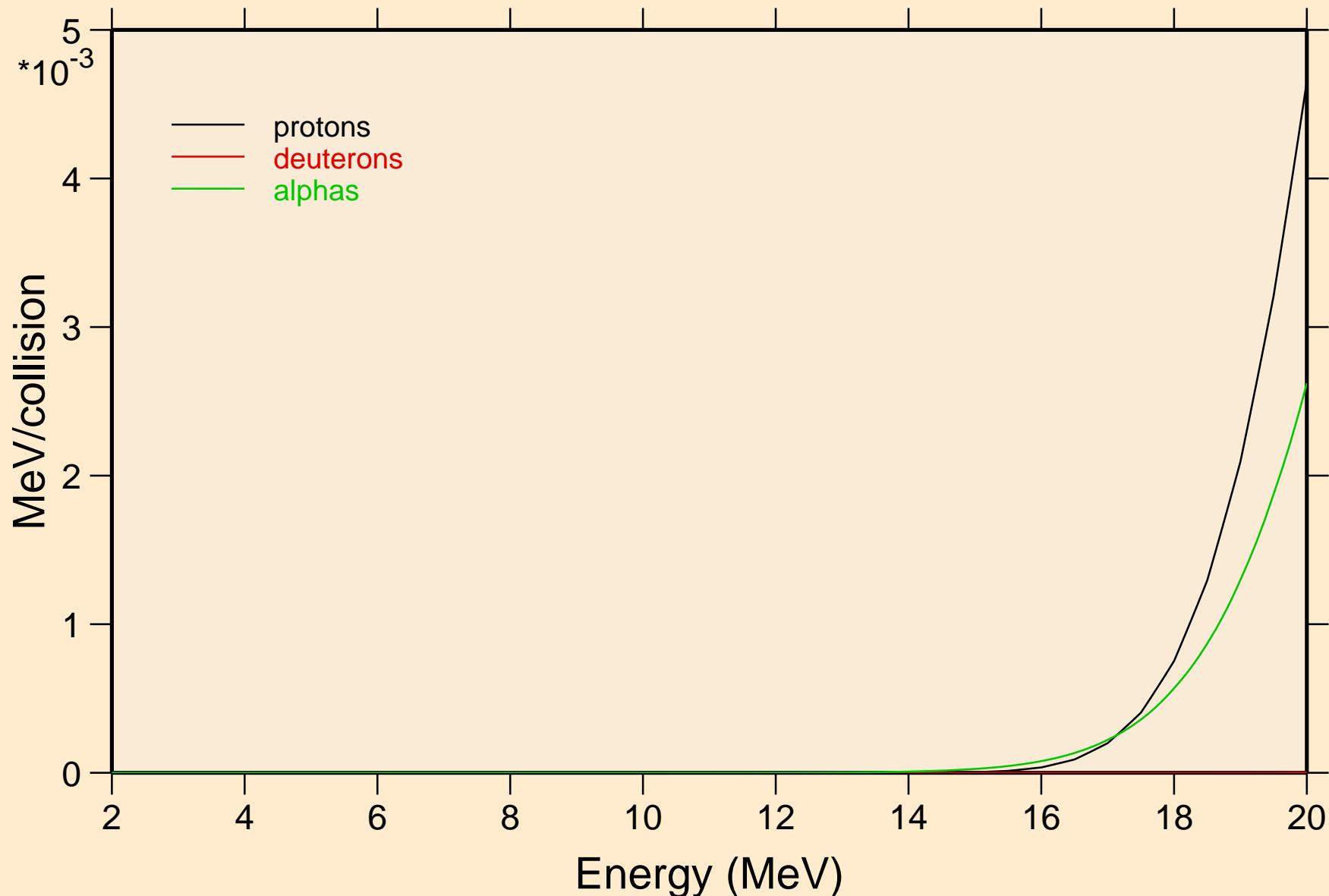


ADVANCE CALCULATIONS  
14 MeV photon spectrum



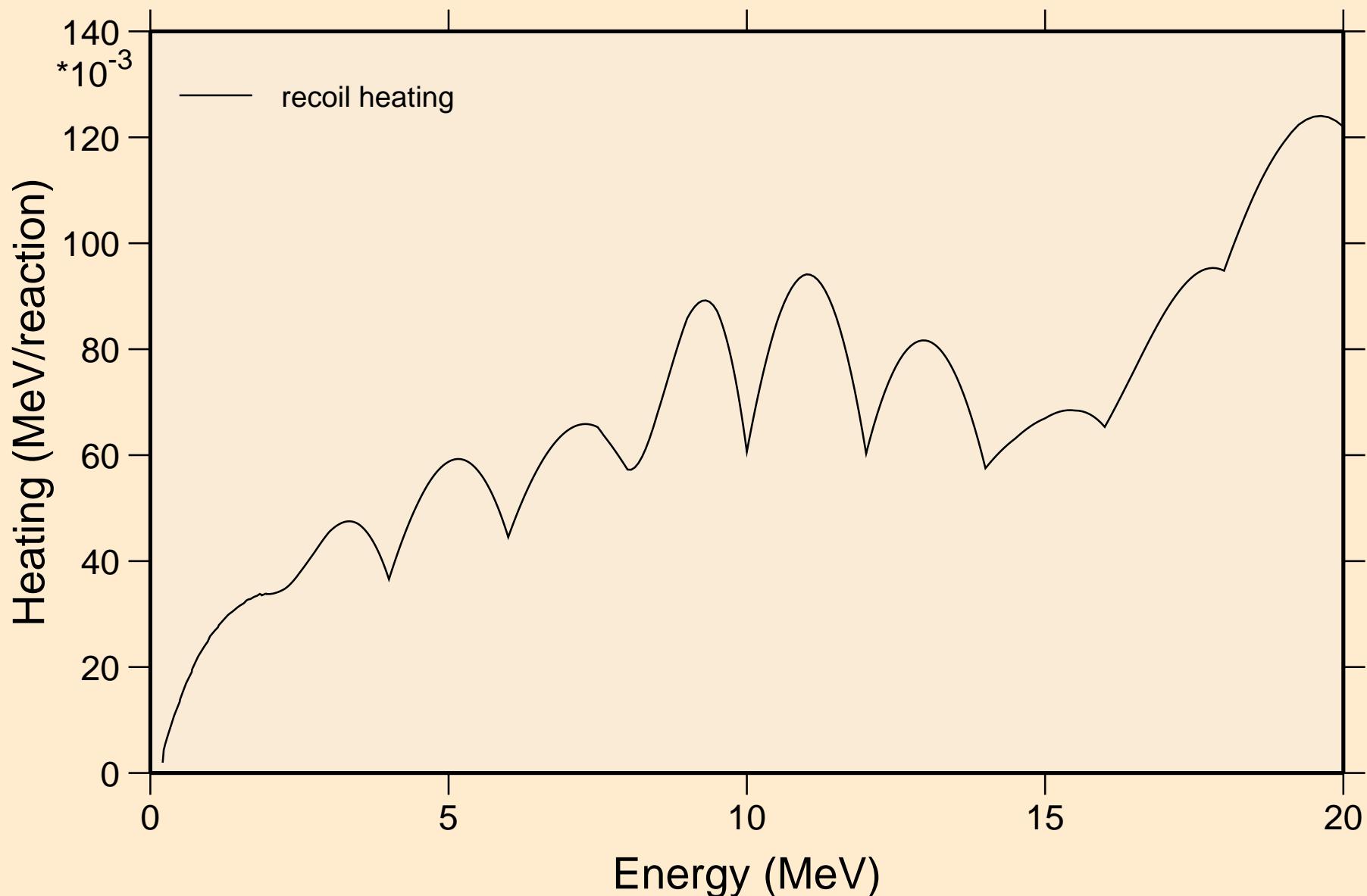
# ADVANCE CALCULATIONS

## Particle heating contributions



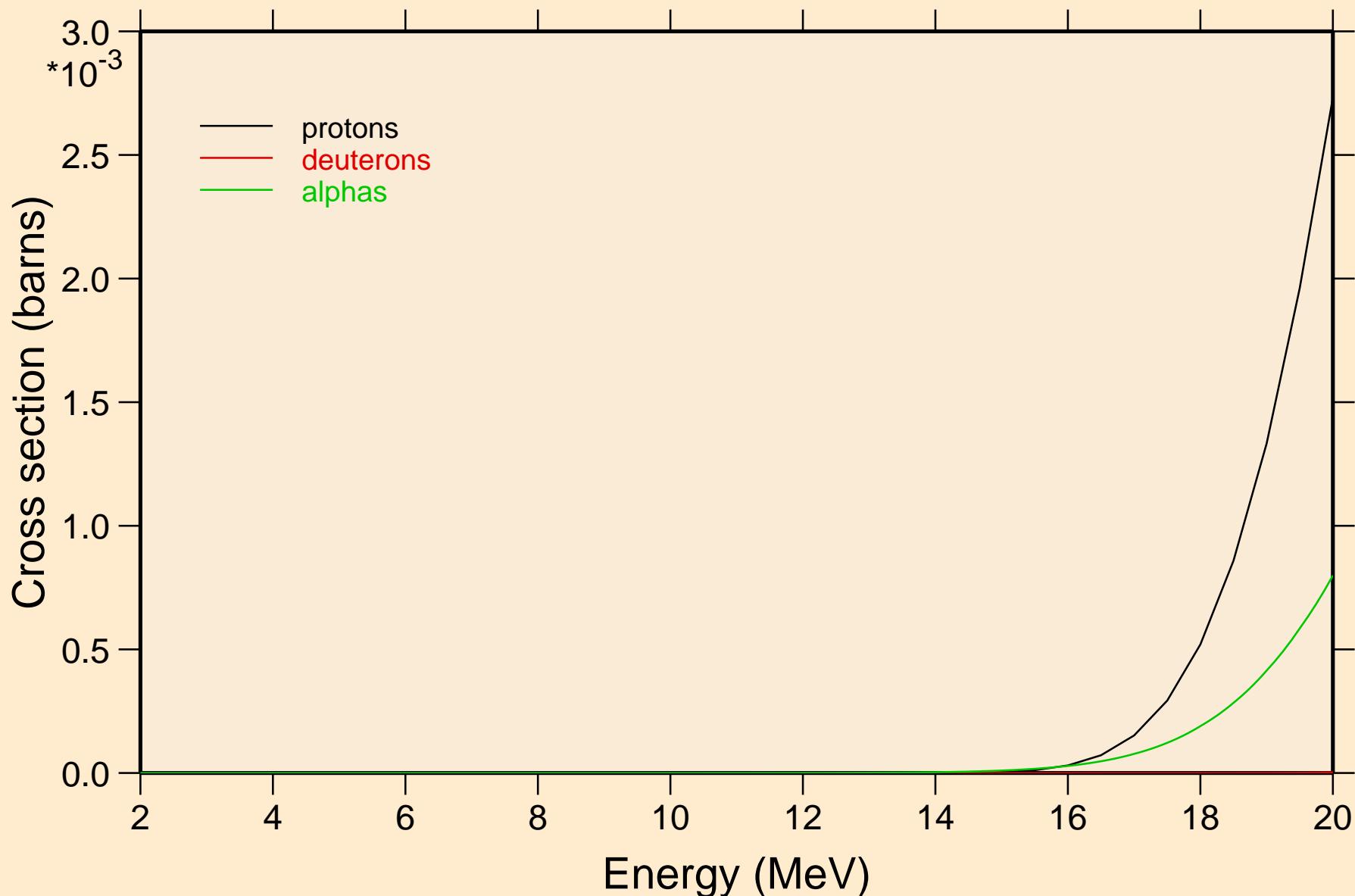
# ADVANCE CALCULATIONS

## Recoil Heating



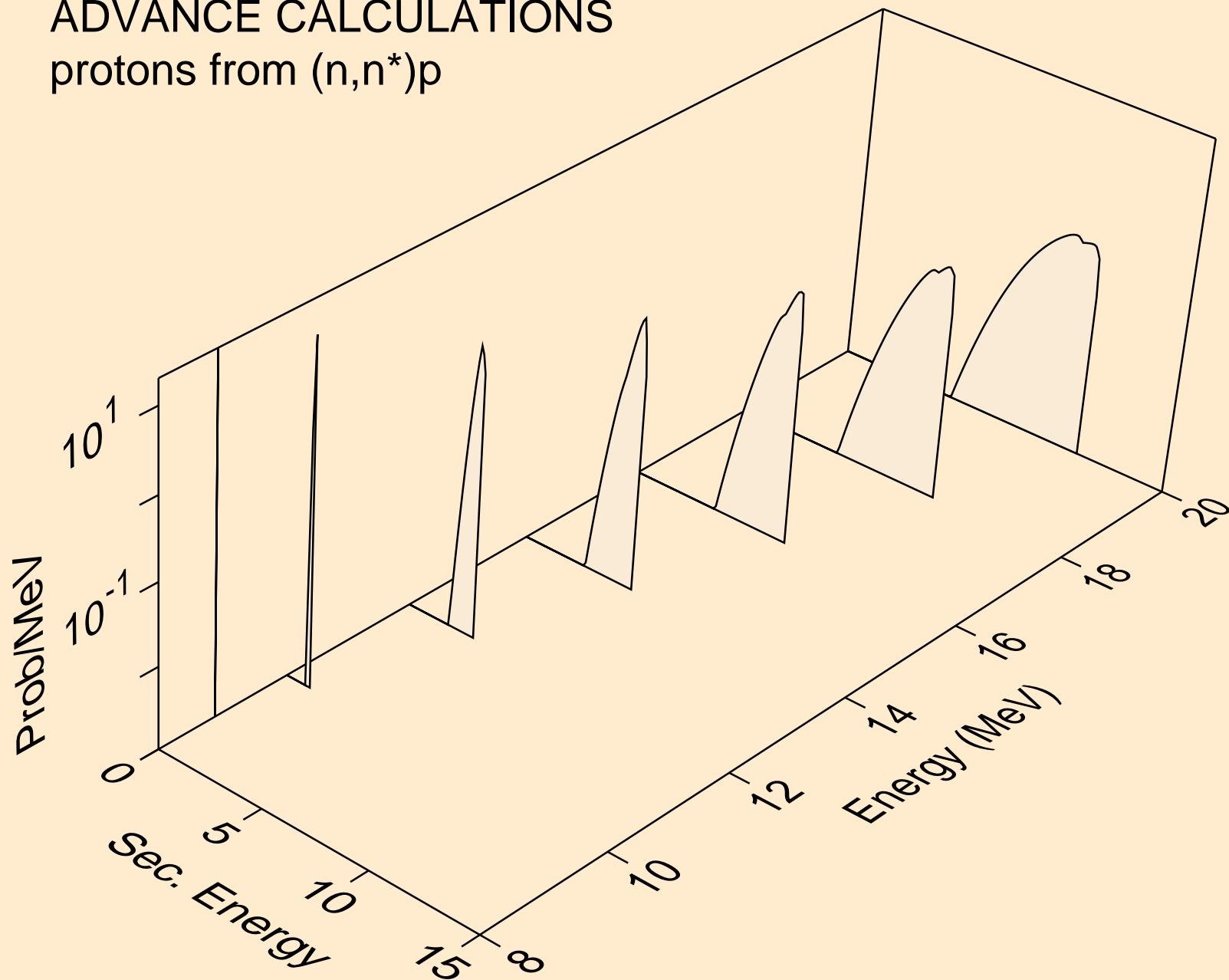
# ADVANCE CALCULATIONS

## Particle production cross sections



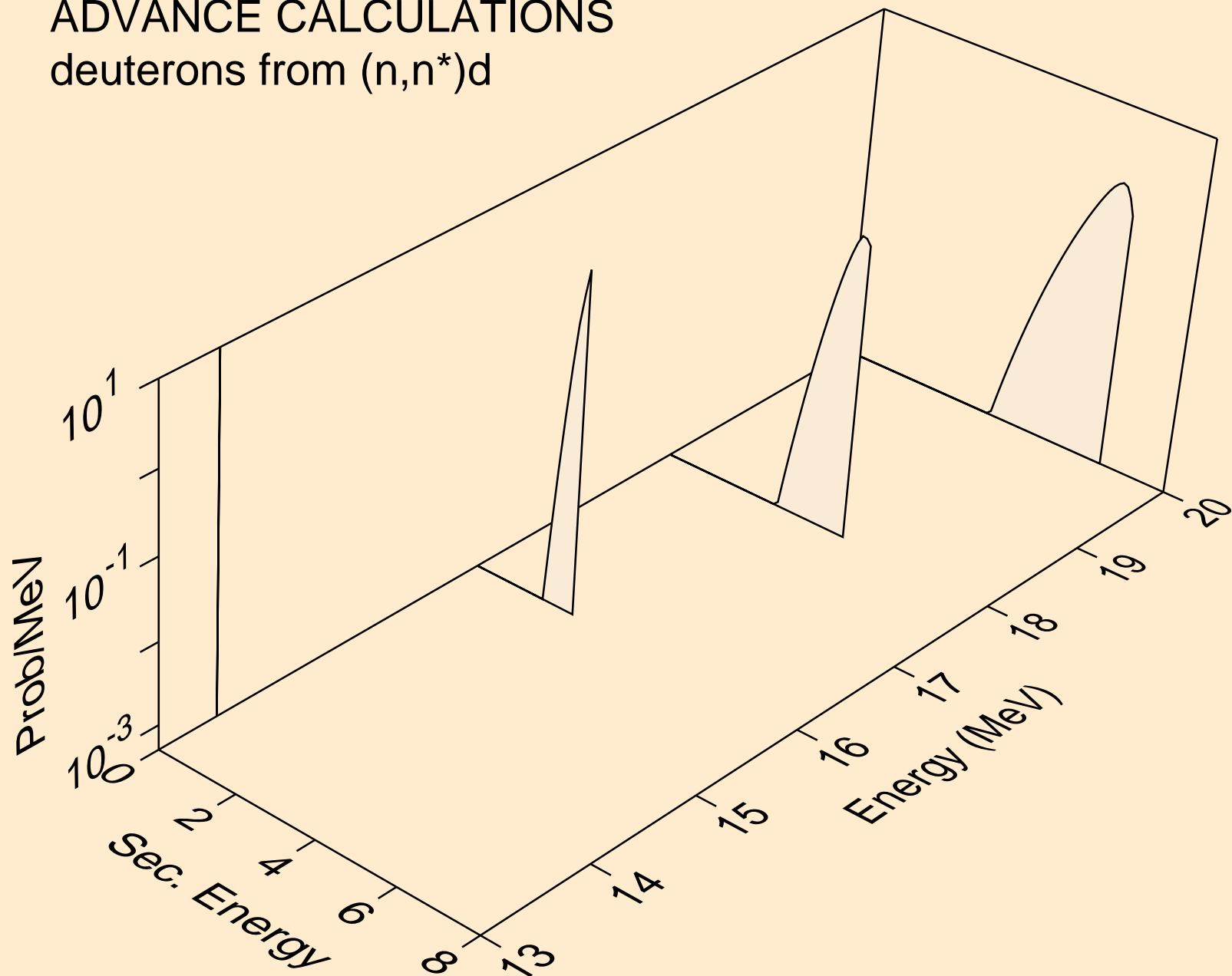
# ADVANCE CALCULATIONS

protons from  $(n,n^*)p$



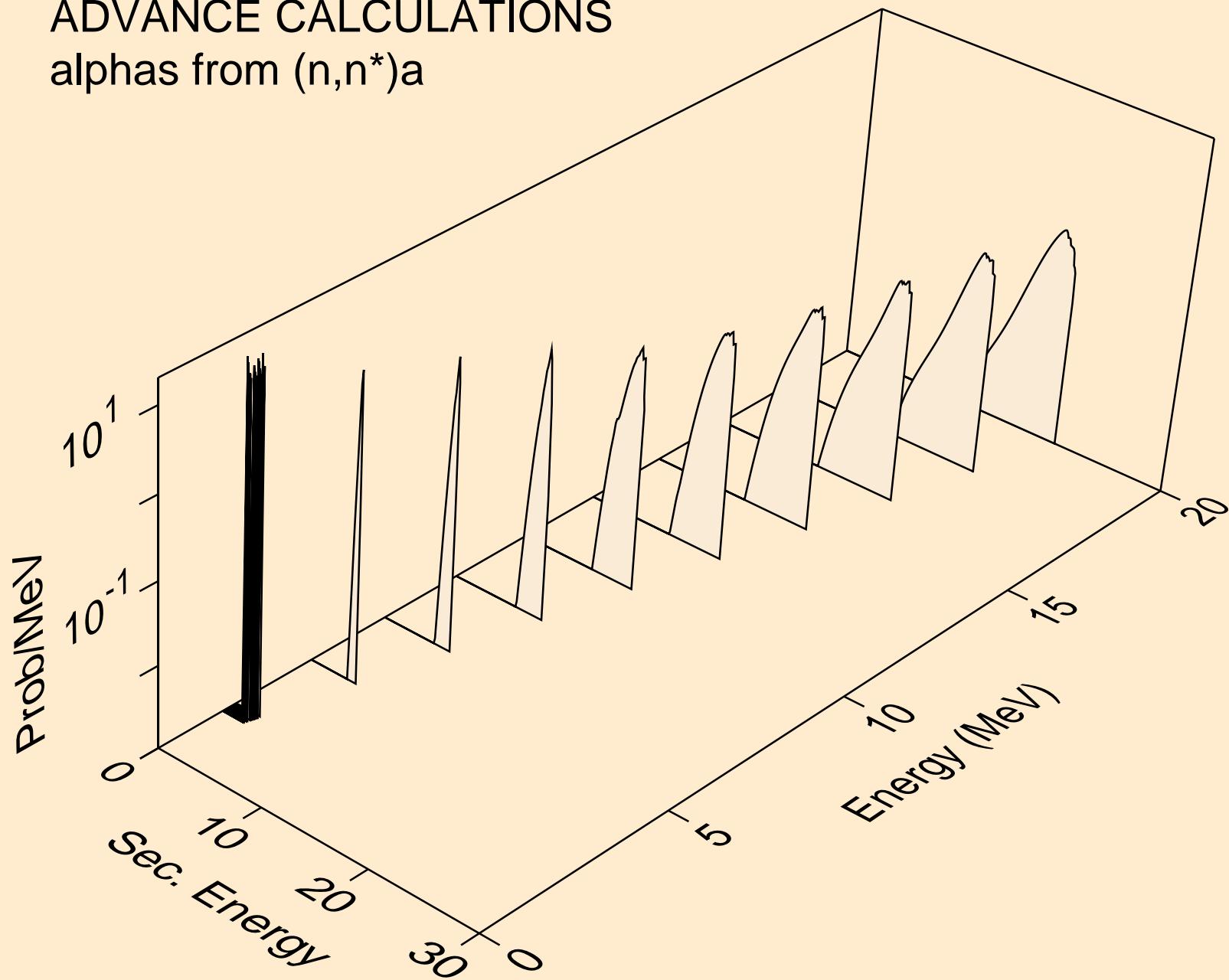
# ADVANCE CALCULATIONS

## deuterons from $(n,n^*)d$



# ADVANCE CALCULATIONS

## alphas from $(n,n^*)a$



# ADVANCE CALCULATIONS

## alphas from $(n,2n)a$

